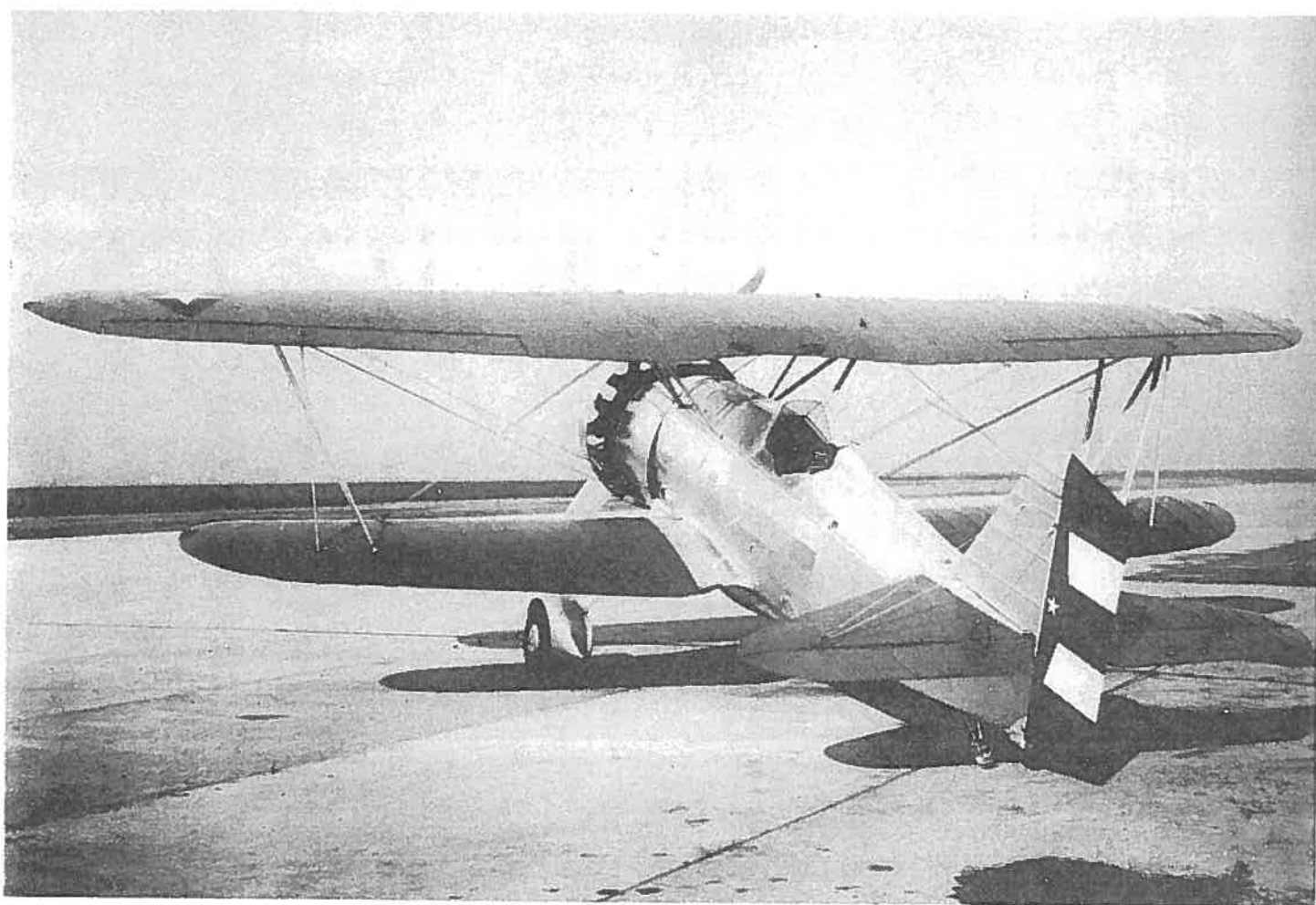


small air forces observer

FINNISH & DUTCH DFW C.V
JUNKERS G.23/G.24/R.42
CANADIAN COAST GUARD
SPANISH ARMY C-30A
CUBAN MILITARY A/C
DJIBOUTI AIR FORCE
NEW GUINEA NOMAD

US \$1.75



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July 1980

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SAFCH SALES SERVICE: The following are available from the editorial office (27965 Berwick Dr., Carmel, CA 93923). All prices are in US \$ and include surface postage.

SOUTH AFRICAN AIR FORCE DECALS #1 - 62 "castle" insignia plus misc. inscriptions (1/72) \$2.00

SOUTH AFRICAN AIR FORCE DECALS #2 - same as above but with "leaping antelope" roundels (1/72) \$2.00

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- 2 FAM F-47D in Mexico (olive green) \$1.35
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- 5 FAM A-24 Dauntless \$1.40
- 6 FAM C-47 Dakota \$1.60
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THE SAAF MUSEUM, 32 pages 8-3/4 by 6 inch, 20 photos, and histories of all a/c in their collection, \$1.25

TBU #58 SAMOLOT MYSLIWSKI SPITFIRE Mk I-V, K. Chołomiewski. 20 pages 6 1/4 by 9 1/4 inches, 14 photos, 14 color side views, and one color 4-view drawing. Spitfires in Polish Squadrons. \$2.50

TBU #68 SAMOLOT BOMBOWY VICKERS WELLINGTON, T. Kowalski. 20 pages 6 1/4 by 9 1/4 inches, 21 photos, 9 color side views, and one color 4-view. Wellingtons in Polish Squadrons. \$2.50

BACK ISSUES: New subscriptions begin with all issues of the volume current at the time payment is received. If you desire otherwise, please specify issues desired. Back issues, when available, are \$1.25 each plus postage. Issues #1 through #9 are out of print, although Xerox copies are available at cost. For a list of back issues and their costs, send 2 1st class stamps (or 2 IRC's) to the editorial office.

SAFO EDITORIAL POLICY: The purpose of the SAFCH is to "promote interest in the history and modeling of the a/c of the smaller countries." In support of this goal, the SAFO will publish articles on all aspects of aviation, both military and civil, from all periods of time and for all the smaller countries. (1) All manuscripts submitted by members will be published in the next available issue of the SAFO. (2) Subscription money will be used only to print and mail the SAFO; there will be no "miscellaneous" column in our budget. And, (3) members are encouraged to sponsor membership for organizations, libraries, and individuals (especially those in countries where US funds are difficult to obtain).

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COVER COMMENTS: The photo of a Curtiss Hawk III on the front cover serves to introduce a special photo feature on early Cuban military a/c, which appears on pages 112-113. These photos were provided by Terry Love (SAFCH #229), 9415 W. 178th St., Lakeville, MN 55044.

(a) Cuban Air Force Stearman PT-17; a/c 46-49. The wing insignia consists of a white star within a red triangle on a blue disk.

(b)-(c) Cuban Air Force Curtiss Hawk II (F11C-2). The wing insignia is a white star within a red triangle.

(d) Cuban Air Force Curtiss-Wright 19R, 51. (Boardman C. Reed Collection.)

(e) Cuban Air Force Curtiss Hawk (P-6) with Wasp engine. Note the reversal of the color tones on the tail from those in photos (a) - (d).

(f) Cuban Air Force Consolidated Husky (PT-3). (Sidney W. Bradd photo.)

(g) Cuban Navy Vought V-99-M (O2U-2) The number "34" appears on the fuselage and under the wing of the nearest aircraft.

(h) Cuban Navy Lockheed Sirius. (Richard S. Allen photo.)

"The Aerospace Historical Research Service provides professional historical research for those who are unable to visit Maxwell Air Force Base, Alabama, to carry out their own research in the Air Force archives held by the Albert F. Simpson Historical Research Center. We conduct research promptly and in total response to the specific requirements of our clients.

"The Albert F. Simpson Historical Research Center is an official U.S. Air Force unit whose mission it is to accession, catalog, index, file, maintain, and retrieve all Air Force historical documents. Its holdings include Air Force unit histories, special collections, reports of many types, working documents of Air Force and Joint Commands and a wide variety of miscellaneous historical documents. Founded during World War II, the Center has historical documents pertaining to Army Air Service, Army Air Corps, and U.S. Air Force activities and units from before World War I to the present, and adds about 2,000,000 pages of historical documents per year to its holdings.

"We must emphasize that any individual can write directly to The Albert F. Simpson Historical Research Center and ask for information. Normally, there is no charge for such assistance. Unfortunately, the Center has a very small staff of research historians who must give priority to research for Air Force and other official government agencies, answering queries from private individuals only when all official work has been done. In early 1981 the delay from receipt of a private query until transmission of a reply was more than 12 months, and if the Center needed additional information from the requester before it could carry out his research, that time doubled. Further, because of the workload, the historians could devote only a minimum of time and effort to each private query, in many cases

(Continued on page 126.)

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Second-class postage paid at Carmel Valley, CA 93924.

HANDBOOKS OF ARMED FORCES by Ronald Tarnstrom, Route 1 Box 2, Lindsborg, KS 67456.

When this very ambitious project first came to my attention, I was more than a little skeptical; "an encyclopedic series of handbooks covering the army, navy and air force of every nation in the world, from earliest times to the present. These handbooks present OBs and TOEs, with tactical statistics and line profiles of nearly every AFV, warship and warplane ever used or planned by each nation. Also included are historical briefs, maps and notes and drawings of uniforms". Now be honest, would you believe that such a project could be done, and if it were, do you think that it could be published at a price that could be afforded by anyone other than an Arab oil prince? Well, after reading "The Balkans, Part I", I am pleased to report that not only can such a handbook be put together, but it can be made available at a fantastically low price.

Let the author describe the series in his own words: "Briefly, my goals for the Handbooks are as follows:

1. Present a detailed summary of the structure and equipment of the army, navy and air force of every nation of the world in a single volume.
2. Publish detailed Orders of Battle and Tables of Equipment, emphasizing the period of machine warfare but with an outline of earlier eras all the way back to the dawn of history.
3. Gather tactical statistics of AFVs, warships and warplanes together in one volume for convenience.
4. Present illustrations of flags, uniforms, insignia, AFVs, warships and warplanes (including experimental and projected types) of sufficient quality for identification purposes.
5. Outline important and interesting campaigns in which the nation took part. Illustrate the actions with maps.
6. Provide a military geography and history for each nation to give the reader a measure of the strength of the nation.

"I intend the Handbook for the use of military historians as a handy statistical reference, for military buffs as a handy side reference to use in illustrating and detailing sections while reading military history, and for wargamers in setting up less known and "what if" situations. Indications are that the Handbooks have largely succeeded in fulfilling these goals.

"An informal survey indicated that the reason something like this had not been undertaken was the high cost of providing such an encyclopedic series. There will be around 20 volumes, produced at the rate of 2-3 each year. Through careful selection of materials and an adequate printing process, I have been able to produce the series at a price of \$5.95 each, postpaid to the USA and \$6.45 postpaid elsewhere. Payment from outside the US should be either by International Money Order or in US dollars (bank draft or currency). Generous dealer's terms are also available.

"Balkans, Part II (Bulgaria, Rumania, Yugoslavia) should be available about the end of June. An earlier volume, The Austrian Empire and Poland (Austria, Hungary, Czechoslovakia, Poland) has sold out its first printing and will be reprinted, again about the end of June. The first definitive volume, Scandinavia (Denmark, Finland, Norway, Sweden, Estonia, Latvia, Lithuania) has been withdrawn for revision and will be reprinted later this summer. About Christmas time I hope to have available the next volume - France. The schedule for 1982 includes Iberia and the Lowlands (Spain, Portugal, Andorra, Belgium, Netherlands, Luxembourg), Italy and Switzerland (incl. The Vatican, San Marino, Liechtenstein) and possibly Great Britain and Ireland.

"These are not pretty-picture book collector items. They are intended to provide compact, hard-to-get information in as inexpensive a format consistent with demand and legibility."

To report on how well Ron succeeds in attaining his goals, let me review "The Balkans, Part I. Albania, Turkey, and Greece": Regardless of the content, to produce 134 pages (8 1/2 by 11 inch) in soft covers with a sturdy binding for \$5.95 (including postage) is a mir-

acle of publishing acumen. I can speak with authority because the cost per page is exactly equal to that for the SAFO.

As for the content, there is no question but that Ron has met his goals. The breath of coverage is best described in his Introduction; "This volume describes the forces and wars of both Empires (Byzantine and Ottoman), the ancient adventures of Alexander the Great, the wars of liberation from the Turks and the modern development of the southern maritime nations, Greece and Turkey, plus fiercely independent Albania. Descriptions of the campaigns of Turkey in World War I and Greece in World War II are included."

Each country is covered in six sections: Geography, Trade, History, Army, Navy, and Air Force. In addition, there are chapters on "The Byzantine Military Machine", "Turkey in World War I", "Balkan Wars", and "Greece in World War II". Fourteen maps cover such topics as "Byzantine Empire 565 AD and 1025 AD" and "Invasion 1940-41". Illustrations consist of line drawings of uniforms, AFVs (1/76 scale), warships (1/1200 scale), and aircraft (1/152 scale). There are 104 drawings of aircraft in this volume and the coverage for AFVs and warships appears to be equally comprehensive.

While I enjoyed all aspects of this volume, I feel qualified to comment only on the air force sections. Let's look at Turkey as an example. Subsections are: "Balkan Wars 1913-1914", World War I 1914-1918", Inter-War (Greco-Turkish War 1919-1925", 1926-1928, 1929-1933, 1934-1938), World War II (1940-1941, 1942-1945), Postwar (1946-1951, 1952-1957, 1958-1974, 1975 on). For each time period, a short paragraph describing events is followed by a list of units and equipment. Each a/c is illustrated by a simple line drawing that is adequate for accurate identification. No markings are shown other than national markings. To better define the depth of coverage, the section for 1934-1938 contains the following information: "The THK developed muscle during the latter half of this decade, with the companies distributed on the three air bases at Eskisehir, Izmir and Diyarbakir. The units were now established as follows: AIR REGIMENT, 3 battalions, 2 companies, 9 fighters, 10 light bombers, 6 medium bombers, 6 flying boats. RECONNAISSANCE COMPANY (independent of the regiments), 10 reconnaissance planes. The equipment in use was again improved with some of the finest fighters available: 6 FIGHTER COMPANIES, 12 Loire-Gourdou-Lescaur LGL-32 (to 1935), 24 Curtiss Hawk II, 14 PZL P-24a (from 1936), 26 PZL P-24c (from 1936). 6 BOMBER COMPANIES, 70 Breguet 19B.2. 4 ARMY COOPERATION COMPANIES, 16 Letov S-16T, Potez 25A.2. 1 MARITIME COMPANY, 6 Supermarine Southampton."

Since the coverage is similar for all sections, it is clear that Ron has accomplished his goal of providing information in a compact form.

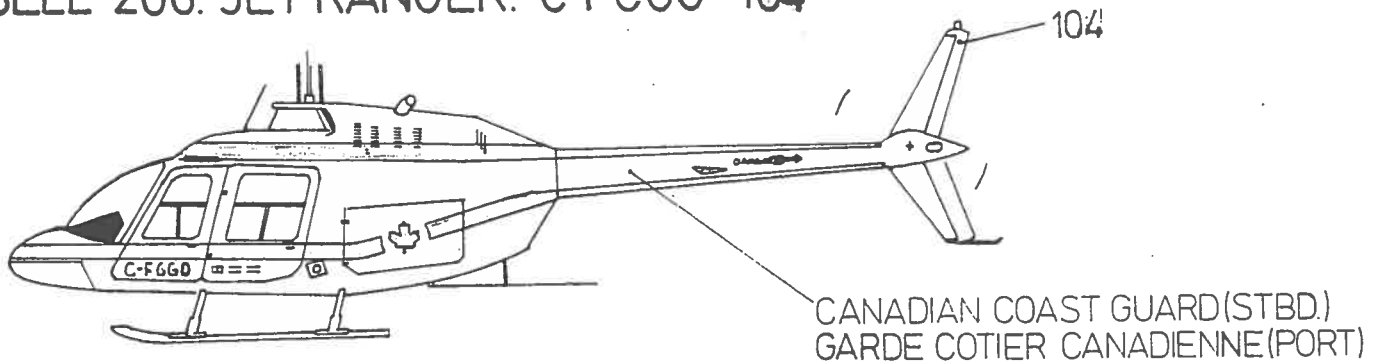
Because of the amount of material covered, there will be many "experts" who will find things in these books that disagree with their "facts". I'll mention the error I found only to emphasize the general accurate nature of the air force sections. The only serious error was that the drawings failed to show the change in Turkish air force insignia from the red "square" to the red-white-red roundel. Another error is a drawing of a Dewoitine D.27 used to illustrate a NiD.62. Ron's response to these errors further emphasizes the uniqueness of this series: "Because I print small batches at a time, these errors will be immediately corrected in all future copies. Further, purchasers of the first printing will receive correction sheets with which they can correct their copies."

The only thing I find missing for this volume is any coverage of aircraft other than combat types. Omitted altogether are the transports, trainers, and utility aircraft as well as all helicopters. However, to include these aircraft would have increased to magnitude of the effort required and the decision to omit them, while regrettable, is understandable.

In conclusion, "The Balkans, Part I" is highly recommended for all small air force enthusiasts who have any interest in the military history of the smaller countries.

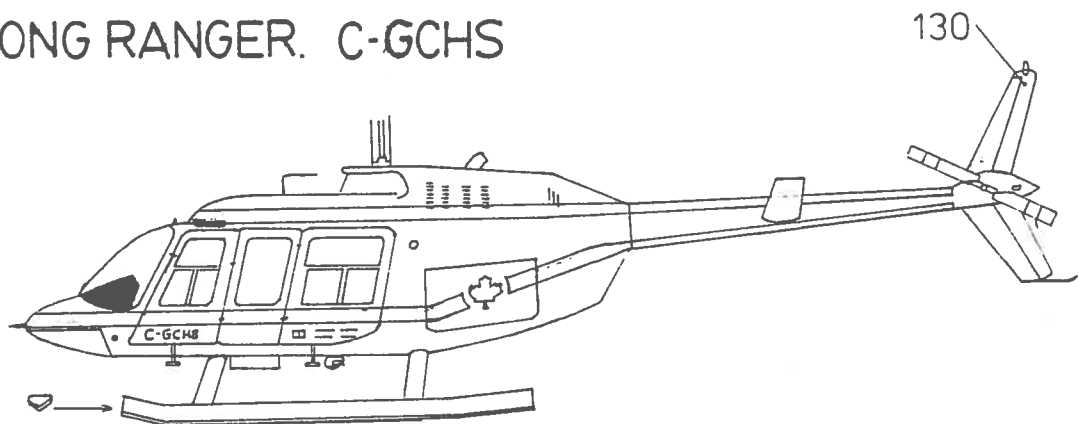


BELL 206. JET RANGER. C-FCGO '104'



BOTH AIRCRAFT. FUSELAGE-WHITE EXCEPT LOWER HALF OF ENGINE COVER, TRANSMISSION TUNNEL, MID FUSELAGE BAND, TAIL PLANE (+FINLETS)+LEADING EDGE OF FIN. FLOATATION GEAR (LONG RANGER) LIGHT GREY WITH WHITE 'V' SHAPED CHANNEL UNDERNEATH

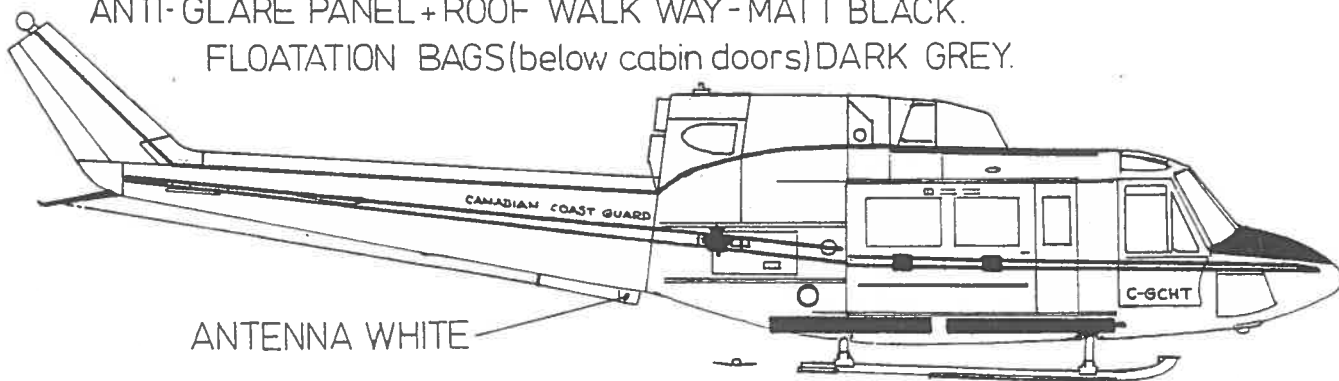
BELL 206L. LONG RANGER. C-GCHS



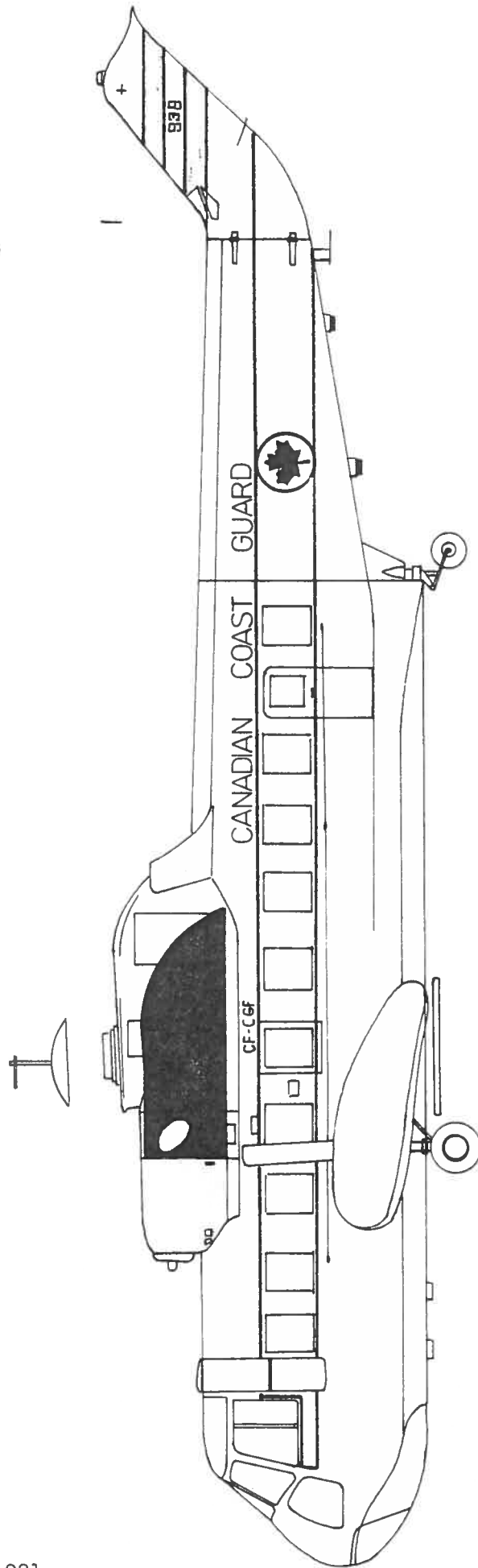
BELL 212. C-GCHT. Perry Sound

FUSELAGE-WHITE EXCEPT ENGINE COVER, TRANSMISSION TUNNEL, FIN LEADING EDGE, MID FUSELAGE BAND+EXTENTION PLATES ON SKIDS WHICH ARE RED. ANTI-GLARE PANEL+ROOF WALK WAY-MATT BLACK.

FLOATATION BAGS (below cabin doors) DARK GREY.

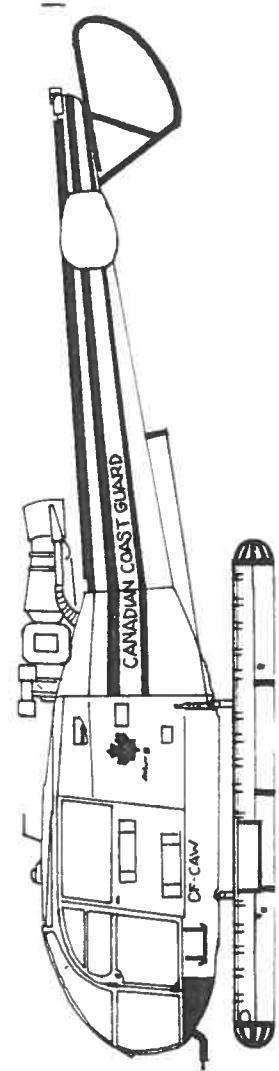


SIKORSKY S-61N. CF-CGF '939' Prince Rupert



FUSELAGE —WHITE EXCEPT WHICH ARE RED. ENGINE COVER,MID FUSELAGE BAND, TAIL STRIPES+ UNDERSIDE

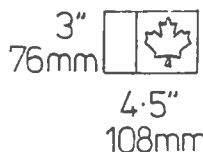
SUD-AVIATION ALOUETTE III.



CF-CAW '948'Quebec
 -CAX '933' St Johns
 -CAZ '934' Victoria

FUSELAGE -WHITE EXCEPT AREAS SHOWN IN BLACK WHICH ARE RED.
 FLOATS - SIVER WITH BLACK REINFORCING

DETAIL



TRANSPORT
CANADA

TRANSPORTS
CANADA

LETTERING 1.5" (38mm) HIGH IN BLACK
FLAG RED+WHITE WITH RED MAPLE LEAF
ON REAR CABIN DOOR BOTH SIDES

REGISTRATION (JET+LONGRANGER)

C-GCHS 6in.(153mm.) HIGH IN BLACK ON BOTH FRONT CABIN DOORS

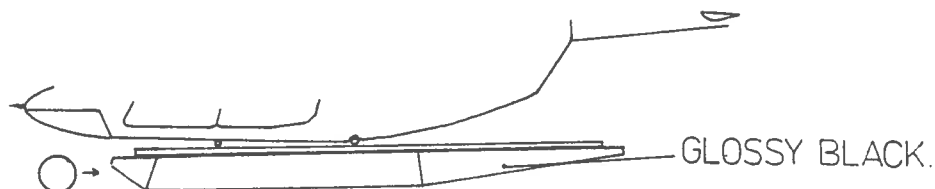
130 ESTABLISHMENT N° 3"(76mm.)HIGH IN BLACK BOTH SIDES OF FIN

CANADIAN COAST GUARD STARBOARD TAIL BOOM

GARDE COTIERE CANADIENNE PORT TAIL BOOM

3in.(76mm.)HIGH IN BLACK ON 212, 206+206L

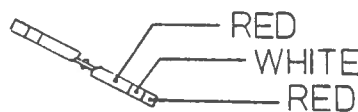
C-GCHT 20in.(508mm.) HIGH IN BLACK ON 212. 6in.(153mm.) ON 206+206L.
UNDER FUSELAGE ON LEFT SIDE READING FROM FRONT TO BACK



SCRAP VIEW SHOWING FLOTS FITTED TO C-FCGO '104'

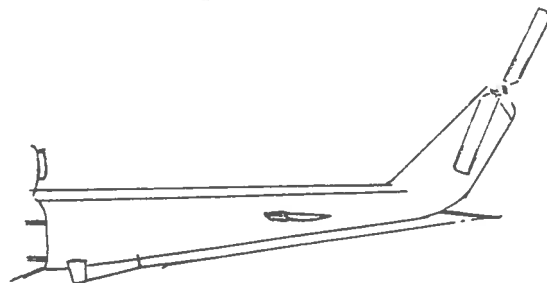
TAIL ROTOR

JET + LONG RANGER

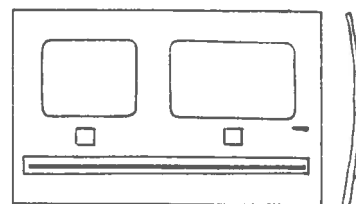


212

RED



212 ANTENNA



212 MAIN CABIN DOOR

CAB 81.

CANADIAN COAST GUARD - GARDE COTIERE CANADIENNE

Bell 206 Jet Ranger: The only kit available in 1/72 scale is the Rareplanes vacuform, which is a good model. In 1/48 scale, we are somewhat more fortunate in that Fujimi have just released three Jet Rangers. The civil Japanese version is moulded in white plastic; surface detail is of the engraved variety with some rivets in evidence.

Bell 206L Long Ranger: To model the Long Ranger, you will have to cut the fuselage of a Jet Ranger and use a second kit to lengthen this by 8.8 mm in 1/72 scale and 13.2 mm in 1/48 scale. Also, lengthen the rotor blades by 7.8 mm in 1/72 scale and 11.6 mm in 1/48 scale.

Bell 212: Here in 1/72 scale we are luckier as Fujimi have come to the rescue once again as this is the subject of one of their most recent releases. The kit is spot on scale and all that is required is to make two new rear cabin doors out of clear plastic sheet and to add the two small squares just below the windows to represent the jettison gear and strengthening ribs. In 1/48 scale you will have to use the ESCI UH-1D and build up the engine housing and construct a new nose.

Sud Alouette III: Fortunately there are kits available both in 1/72 and 1/48 scale. The former from Heller the latter from Fujimi, both good kits. You will have to make up the floats which should be 9.5 mm in diameter in 1/72 scale and 14.0 mm in diameter in 1/48. Whatever you do, don't buy the Heller 1/50 scale Alouette III, it's ghastly.

Sikorsky S-61N: Well, here's a problem, and it's going to be a little on the expensive side. The nearest kit available is the Airfix Sea King, to which you will have to add the nose section from the Revell Jolly Green Giant to achieve the correct length of 18.08 m (251 mm in 1/72 scale).

Decals: The modellers good fairey must still be about somewhere, as Blick/Letraset produced four sheets of Canadian insignia. Sheets M31 contain maple leaves, and sheets M32 contain Canadian flags, both in various sizes. The serial numbers, etc., are "Grotesque 9" style and can be obtained again from the Letraset range.

"The 206, 206L, and 212 were drawn from slides provided by Jim Mackenzie (SAFCH #404); the Alouette III and Sikorsky S-61N came from an issue of Aircraft Illustrated from some time in 1969. I don't know if you wish to print the text on modelling, but in view of the lack of coverage given to helicopters in the past, it might be welcome.

"I would be willing to tackle the Hughes 500 as an SAFCH Research Project. If this meets with your approval, would you put an insert in the SAFO to this effect.

"Recently, along with a few modelling friends, we have started an aircraft research group called MARS (Model Aircraft Research Specialists). As our first project, we are going to tackle the Mirage III/5 family. Initially, we will concentrate on the SAAF aircraft, and then widening the scope to cover the rest of the world. At present, we do not have much material on the Latin American Mirages. Do you know of anyone who would be willing to help us in this area?"

Colin A. Burgess (SAFCH #402), 2 Conway St., Crystal Park, Benoni, 1500 Republic of South Africa.

(Editor's note: Colin has the full support of the SAFCH for both of these projects. As with all SAFCH Research Projects, he will need to provide an Initial Progress Report, listing the a/c for which he already has complete schemes. He should also include a drawing of the Hughes 500 so that members can make copies on which they can put the markings for the a/c missing from Colin's list.

The Mirage project should be of great interest to all SAFO readers and I hope that many of you will want to help MARS. If the SAFCH contribution is significant, I hope that MARS will consider allowing the SAFO to reprint their results.)



-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-

AUSTRALIA

APMA (PO Box 51, Strathfield, N.S.W. 2135)

4 80 (24 pages) "Australasian Petroleum Co. - The Aircraft" 4 pages including 1/72-scale drawings of Sea Otter and Widgeon. "B57G Cambera" 9 pages including 1/72-scale drawings, color schemes, and photos.

AUSTRIA

OFH NACHRICHTEN (Kannegasse 1/15, A-1150 Wien)

1/81 (30 pages) "Das JABO Geschwader in Linz-Horsching" 7 pages of text, 5 pages of drawings (DH 115, J29F, Fouga CM170, Cessna L-19, SAAB 105OE), 6 photos (DH 115, CM 170, J29F, SAAB 105OE, L-19). "Osterreichische Flugzeugwerke OK-15" 3 pages including scale 3-view drawing. "Infanterieflugzug Albatros J.I" 3 pages including 1/72-scale 3-view drawing.

BELGIUM

KIT (Rue des Eburons 35, 1040 Bruxelles)

#41 (52 pages) One page drawing of South Korean F-5F. "Belgian Bristol Sycamore" 5 pages including color schemes for all 3 Belgian a/c, and 4 photos.

CANADA

HIGH FLIGHT (Box 393, Stittsville, Ontario K0A 3G0)

Vol. 1 #5 (40 pages) "VIP's and Casualties - the story of 440 (T&R) Squadron 1968-1981" 7 pages including 16 photos (Twin Otter, H-21B, Dakota, Buffalo). "Spirit of Little Norway" 10 pages including 25 photos of Norwegian Curtiss H75, Fairchild PT-19, Stinson Reliant, Douglas

8A. "The Pregnant Frog - the story of the Grumman/CCF Goblin in RCAF service" 8 pages including 19 photos. "Chronology 1923" 8 photos of DH-4, Curtiss HS2L & H-16, Vickers Viking. "Prestwick Panorama" 19 photos of RCAF Lancaster, North Star, Dakota, Sabre, Neptune, C-119, CF-100, Freighter.

RT (Box 626, Stn. B, Ottawa, Ontario K1P 5P7)

6 80 (24 pages) "RCAF Neptunes" 21 pages including 27 photos (many of the interior) and 12 pages of official marking diagrams.

FINLAND

IPMS MALLARI (PB 798, 00101 Helsinki 10)

#36 (8 pages) "Douglas A-20 in Soviet AF Service" 3 photos and 6 side-view drawings. "Arado 96" 11 photos and one page of drawings - all Czech machines.

ENGLAND

IPMS MAGAZINE (P. Clisby, Flat B, Block M, Peabody Estate, Hammersmith, London W6 9QW)

Jan/Feb 81 (12 pages) "F2H-3 Banshee" 1 photo of Canadian machine and one page of drawings for converting the Airfix F2H-2.

MILITARY AVIATION REVIEW (US Distributor: Aero Research, 4672 Flamingo Park Ct., Fremont, CA 94538)

Feb/Mar 81 (48 pages) Photos: Turkish F-104G D-5705, D-8319 & D-8115; Singapore T-33 RSAF 903; Canada CH-124

(Continues on page 108.)

WARBIRDS by Owers

The Netherlands obtained ten DFW C.V aircraft which were interned during the Great War. Eight were Impressed into LVA service. Details are as follows:

| Date of Internment | Original Serial | LVA Serial | Notes |
|--------------------|-----------------|------------|--|
| 14 June 1917 | 5928/16(Av) | LA43 | Later D408 |
| 20 July 1917 | 4982/17 | LA46 | Later D406 |
| 29 July 1917 | 5287/16(LVG) | LA47 | Later D405 |
| 12 Aug. 1917 | 9057/16(Av) | LA44 | Later D407 |
| 11 April 1918 | 7928/17 | D426 | |
| 13 May 1918 | 6902/17 | D436 | |
| 22 Sept. 1918 | 6767/18 | D445 | |
| 12 Oct. 1918 | 4375/18(Av) | D479 | |
| 13 Nov. 1918 | 8006/18 | | |
| 17 Nov. 1918 | 2138/17(LVG) | | Carried the red flag insignia of a Soldier's Council |

It would appear that only the first C.V was purchased.

It is assumed that the aircraft were operated in the colour schemes they wore when interned as was usual with the Netherlands aircraft of this period. DFW C.V aircraft were finished in a variety of schemes most of which included mauve and lilac, two colours which are hard to distinguish on the films of the time, which makes identification of these schemes very difficult. LA47 was an LVG built aircraft and was sprayed, the colours having a soft outline, merging one into the other. The front of the aircraft was a dark colour (green?) which gradually merged into a light coloured rear fuselage. Dark streaks are sprayed over this light colour near the rear cockpit. Wings are similarly finished. Undersurfaces are assumed to be light blue.

LA46 was painted in a different scheme. The front of the fuselage was painted a dark colour, as was the rear portion. A lighter shade was between, the division between colours was sprayed, but was sharp. The fuselage national insignia appears to have been overpainted with a light colour, but a darker shade than it was original-

ly painted. Perhaps the lilac/mauve was overpainted purple. The fin and rudder were a light colour (mauve/lilac). The wings and tailplane were outlined in pale blue, the same as the undersurface blue, about 1 inch wide. It has not proved possible to determine whether the wings were losenge or camouflaged, but it is most probably the latter. The Netherlands obtained many aircraft from Germany in exchange for a commodity of more importance to the German war effort - horses! It is therefore probable that stocks of German dopes were available to the LVA.

Finland used two DFW C.V aircraft. They were received from Germany on 24 March 1918, and were allocated serials C56/18 and C57/18 by the Finns. The former was damaged beyond repair on 28 February 1919 at Santahamine and was finally removed from the inventory on 11 August. The latter aircraft survived until 11 February 1921, when it crashed fatally at Utti. At this time its serial was 2A351 (some sources state 2C351).

It is not possible to identify the aircraft individually from photographs as the serials are not visible. The aircraft are distinguishable by their different colours and markings. They both were coloured a dark colour (green?) on the fuselage with light blue underbelly. Wings, ailerons, rudder, and elevators were covered with losenge fabric. One C.V had the rudder insignia painted the wrong way on a white square. The other had the whole of the rudder painted white with the national insignia correctly positioned. This latter aircraft had a light coloured spinner.

It has proved impossible to confirm the scheme depicted in "Suomen Ilmavoimien Lentokonett 1918-38" which shows 1A351 in a dark colour overall with a light fuselage belly.

Special thanks to Fritz Gerdessen and Eino Ritaranta who provided all the information in this article.
Colin Owers (SAFCH #261), PO Box 73, Boorowa. N.S.W.
2586 Australia.

-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-abstracts-

(Continued from page 107.)

414; Zimbabwe LASA-60; Swaziland Arava 3D-DAC; Comores Cessna 402B D6-ECA; Begium Dominie D2; Israeli Mosquito TR.33 4x3186. "MFG-6" 1 page including photo of H-34G 80+73. "A History of the Turkish Air Force - Part One 1944-1952" 5 pages including 15 photos (Spitfire Vc 5512; Southampton & Walrus; Hanriot 182 15; Blenheim V 53; Baltimore 5348; Battle 2805; Gotha 145 19; FW 190A-3 36; B-24D 4103; CW-22A 46; Mosquito FR.VI 6652; Blenheim VI 10; C-47 KR-18).

ITALY

JP4 (CP 1550, 50100 Firenze)

Jan 81 (88 pages) Photos: Brazil EMB-321 YT-24 1300; Chile PC-7 (color). "Museo de la Fuerza Aerea Venezolana" list of a/c in VAF museum including photos of Ryan Flamingo NC-9487 (Jimmy Angel's plane), MS-147 (color), Caudron G-3 (color), Breguet 273 (color), Sikorsky S.51, Venom FB4. Two color side views of Italian Bf.110C-3. Photos and small 3-view of Caproni CA.70 and Bleriot

127 M/2.

Mar 81 (88 pages) Photos: Niger B.737 5U-BAG (color), Philippine F-27, Morocco Alpha Jet. "Messerschmitt me210 in Ungheria" 4 pages including 8 photos. Color side and top views of Italian Bf.109-G-6.

SOUTH AFRICA

AFRICAN AIR REVIEW (PO Box 1413, Alberton 1450)

Nov/Dec 80 (24 pages) "Aircraft of the SAAF - Beaufort Mk.1" 2 pages including individual a/c histories.

Jan/Feb 81 (24 pages) "SAAF Squadron Histories - 28 Sqdn" one page. "African Air Forces - Rhodesia" one page describing Rhodesian acquisition of Cessna 337, SF 260, AB 205, and a few that got away.

SWITZERLAND

Virus Plasticus (Delfterstrasse 29, 4004 Aarau)

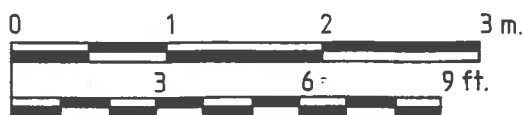
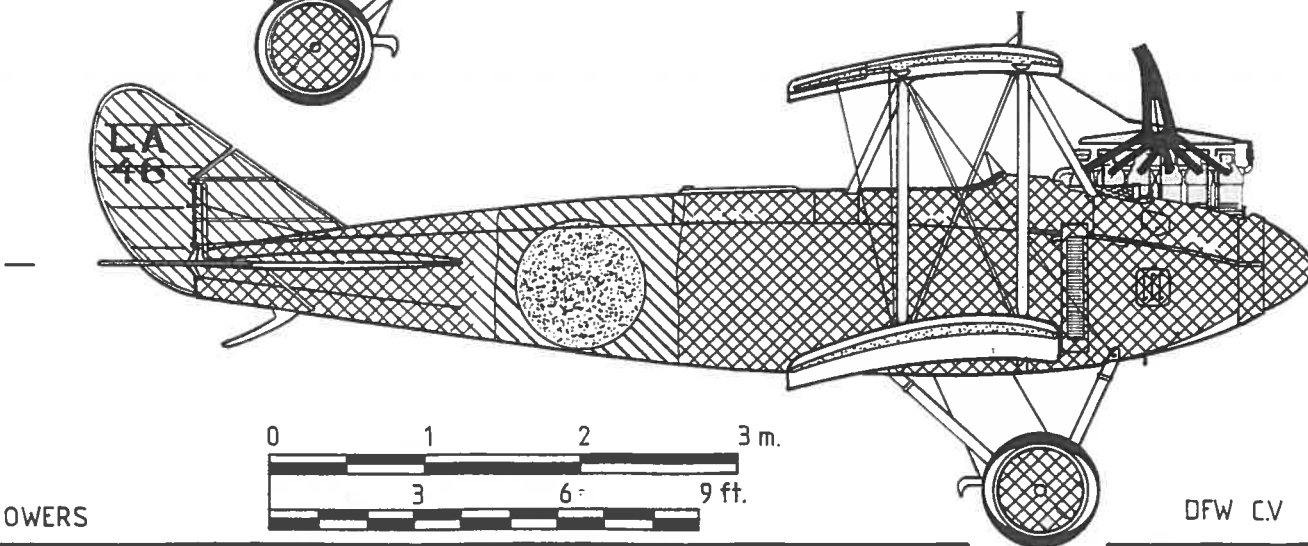
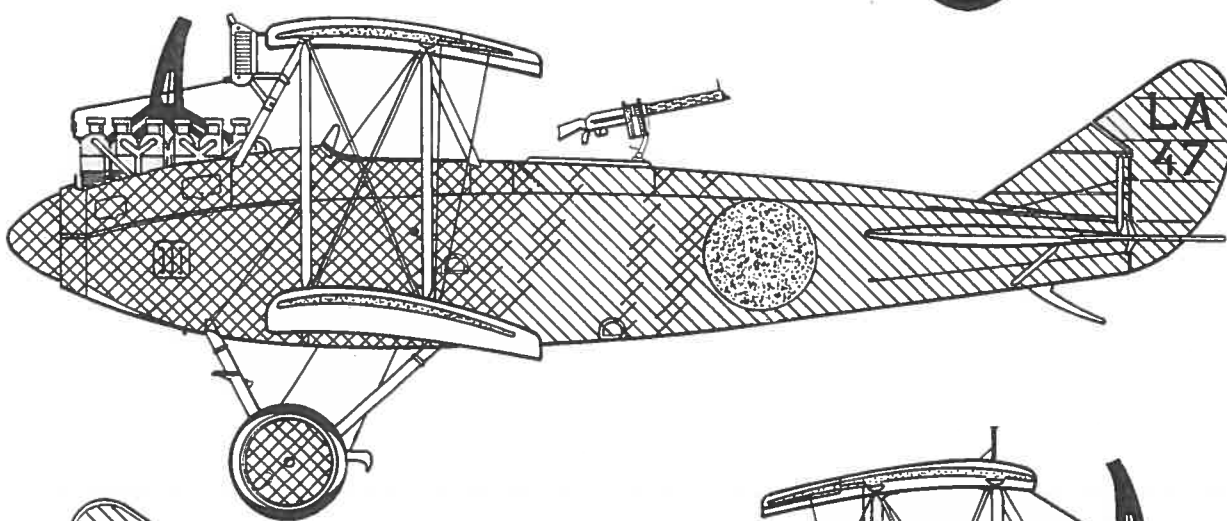
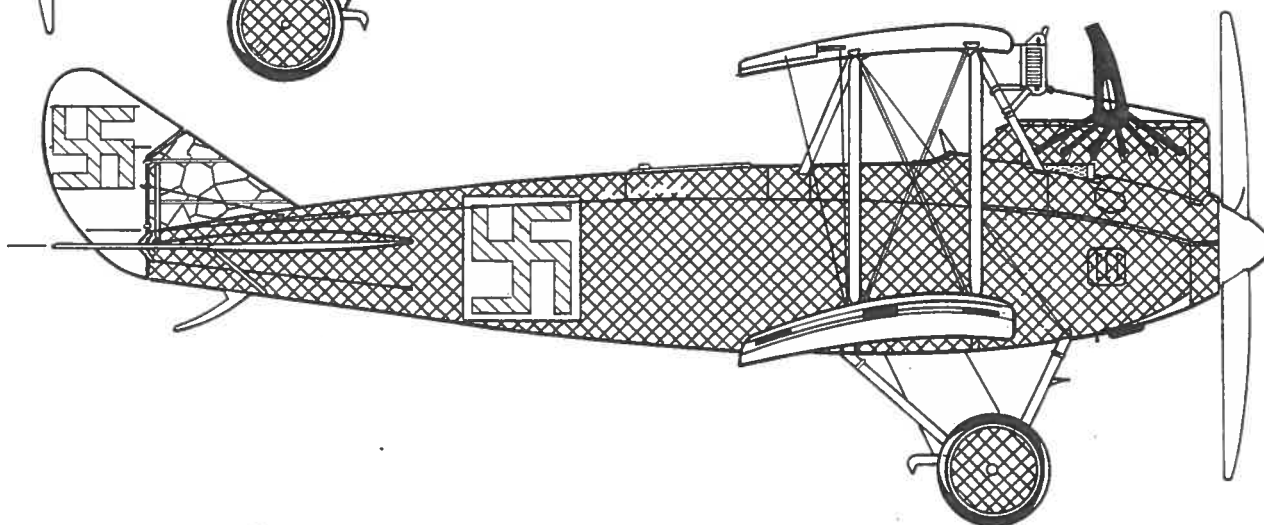
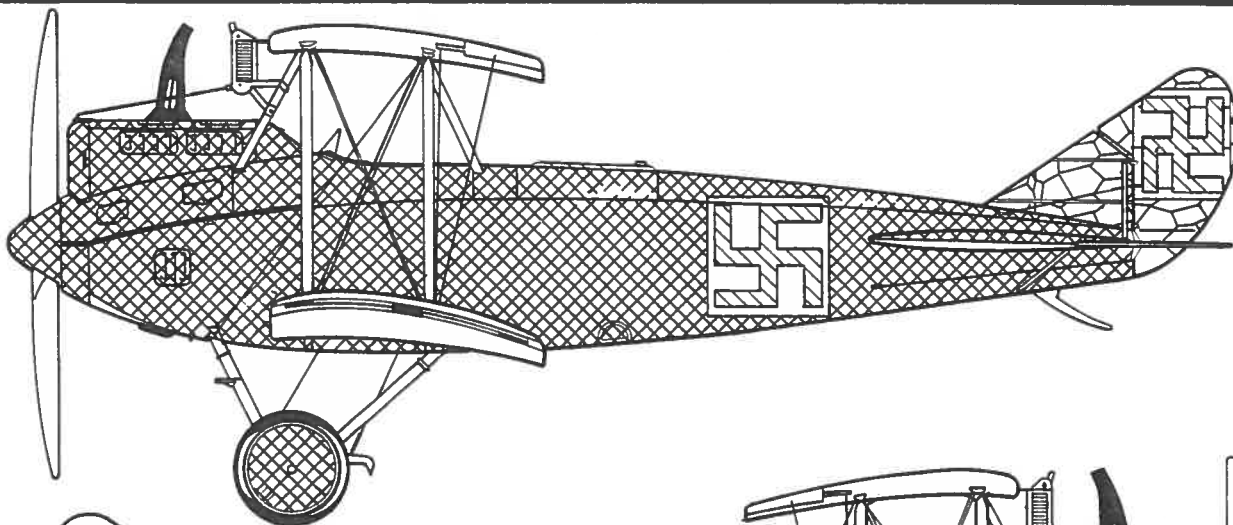
1 81 (30 pages) "Uniernehmen Balak" 5 pages including 3 photos and one page of drawings of Israeli Avia S-199.

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"The Venezuelan Air Force is considering a major re-equipment program. Plans are under way to purchase 70 new combat a/c: 48 F-16 (pending US approval); 22 CAS a/c (A-7 or A-10). Also under consideration are: 48 HS Hawks (24 for training and 24 for light attack); 20-24 additional T-34C; and 7 C-130 or L-100.

"Please publish my new address and let the readers know that my Latin American Research Project will continue. Coming soon will be a segment on the B-26 and an update for the T-33."

Nike Waters (SAFCH #2), OZ Division, USS Saipan (LHA-2), FPO New York, NY 09549; or 330 Allen St., Norfolk, VA 23505.



C.A. OWERS

DFW CV

SPANISH ARMY C-30

(Part I of this series on the La Cierva C.30A in Spain covered the Naval Air Service and appeared in SAFO #17. This series was written by Juan Arraez Cerda, European editor of PUCARA. The SAFCH wishes to thank Juan and PUCARA for their continued cooperation.)

Little is known about the La Cierva C.30A (Avro 671) autogiros that served with the Aeronautica Militar Espanola. What is known is mainly due to the research of a distinguished group of Spanish air historians (several whom are member of the IEHA) under the aegis of Juan Arraez Cerda.

As described in Part I, following a demonstration of the C.30A at the naval air base at San Javier, the Spanish Naval Air Arm ordered a pair of autogiros. The Army, although also interested in this aircraft, did not commit itself at this time. It was only after the uprising at Asturias in 1934 and the excellent work performed by the Navy autogiros, that the Aeronautica Militar Espanola (AME) decided to order two C.30A's of its own. Avro made delivery almost immediately and the two machines, c/n 781 and 782, were assigned to Grupo 41 as 41-2 and 41-3. These AME C.30A's were posted to Cuatro Vientos Air Base on the outskirts of Madrid and were first to show their worth during the Air Maneuvers of 1935. Shortly after these exercises, Grupo 41 was disbanded. Two liaison "escuadrillas" were created at this time, Y-1 and Y-2, which were posted to Cuatro Vientos and Alcazares, respectively. These new units, mainly equipped with CASA-built Breguet XIX's, took on strength one C.30A apiece. Thus, the former 41-2 became Y2-2, and 41-3 was reserIALIZED Y1-3.

At the outbreak of the Civil War on 18 July 1936, both C.30A's remained under Republican control. Y1-3 was destroyed when a Nationalist artillery barrage mauled the hangers at Cuatro Vientos where it was being stored. (The autogiros were unusable since no trained autogiro pilots remained in the Republican Zone; those who had been trained to fly autogiros had either escaped to the Nationalists or had been murdered.)

Meanwhile, Y2-2 was at the Los Alcazares airdrome near San Javier Naval Air Station. The Republicans painted a broad red stripe around its fuselage, covering the cocardes and serial number, but left the tricolor insignia on the rudder. During the early part of the War, the surviving C.30A was used in a few short reconnaissance flights over the Mediterranean Sea in the proxim-

ity of the naval base at Cartagena (which was a few kilometers from Los Alcazares). But, soon it was relegated to the back of a hanger and forgotten. When the Cartagena naval base was occupied by the Nationalist forces at the end of the War, no trace was found of the autogiro, and its fate remains somewhat a mystery to this day. However, recent information leads us to believe that Y2-2 was cannibalized so that its engine could be mounted on an undetermined aircraft.

I would also like to add that the Nationalists did operate one autogiro, and C.19. But we will relate this story at some future time and I will only mention that this particular machine is now preserved in mint condition at the Spanish Air Museum.

PHOTOS: a. Prototype C.30A, G-ACIO, at San Javier Naval Air Station. Note the Hispano-Suiza E-30 trainers of the Aeronautica Naval in the background.

b. Teniente de Jose Luis de la Gurdia and his C.30A, EA-SCB, lat 1935 at San Javier. (Both photos Archivo de Pucara.)

(Juan Arraez Cerda also has some comments about the drawings by Bob Massey that accompanied Part I of this series.) "Drawing A: Bob is in error. We must remember that photographic paper used in Spain during the 1930's was Orthochromatic and that on such paper violet would appear lighter than yellow, giving the impression that there were only two colors present (red and yellow). 41-2 always bore Republican markings consisting of red, yellow, and violet cocardes and tail stripes. Drawing B: Grupo 21, equipped with Breguet XIX's, was based at Leon up to the outbreak of the Civil War. I have never come across any reference to a C.30A being attached to Grupo 21, much less to an autogiro bearing serial 21-2. I should very much like to see a photo of 21-2, but I suspect that 41-2 might have been misinterpreted as 21-2."

(Editor's note: The articles on the La Cierva C.30A in Spain were provided by the Instituto de Investigaciones Aeronauticas Hispano Americano (IEHA), an organization dedicated to the study and preservation of Latin American aviation history. They have graciously offered to help SAFCH members engaged in writing articles on Latin American subjects. For further details, contact PUCARA, P.O. Box 1365, Highland Park, NJ 08909, USA.)

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"In SAFO #19, some of your readers made a point or two on Latin American aircraft, which I feel merit correction:

"(1) One of the very officials of DGAC is also responsible for a certain pamphlet floating about Buenos Aires which describes the C.30A displayed in the Museum as c/n 1031. However, that is as much of a myth as the rest of the paragraph devoted to the 'giro'. The pamphlet claims the 'giro was used in the 1933 maneuvers (the C.30A was produced from 1934 onwards!) and identifies the machine as the one participating. However, I must differ with DGAC and the pamphlet. Manufacturer's c/n are usually given a logical numerical sequence. Thus, we have that the two Spanish ones (41-2 and 41-3) delivered in 1934 were c/n 781 and 782 (this is born out by Spanish official records as well as in Jackson's AVRO AIRCRAFT SINCE 1908, Putnam, 1965). According to Mr. Jackson, the last two machines (c/n 1031 and 1032) were exported to Argentina (their presence, if I correctly decipher my own handwriting, is certified by a G-2 document in the National Archives (2076/91 21 dated 1 July 1938) which gives us an "Air Order of Battle" of the Argentine Army Air Corps. Mr. Aymas's machine, whose presence in Argentina is recorded much earlier than these two 'giros, must have been a c/n somewhere in the 700-900 range.

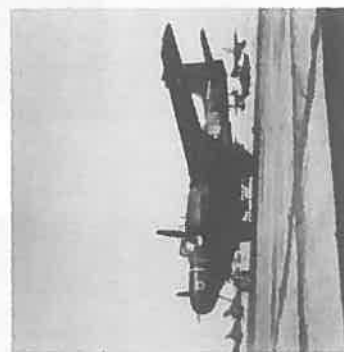
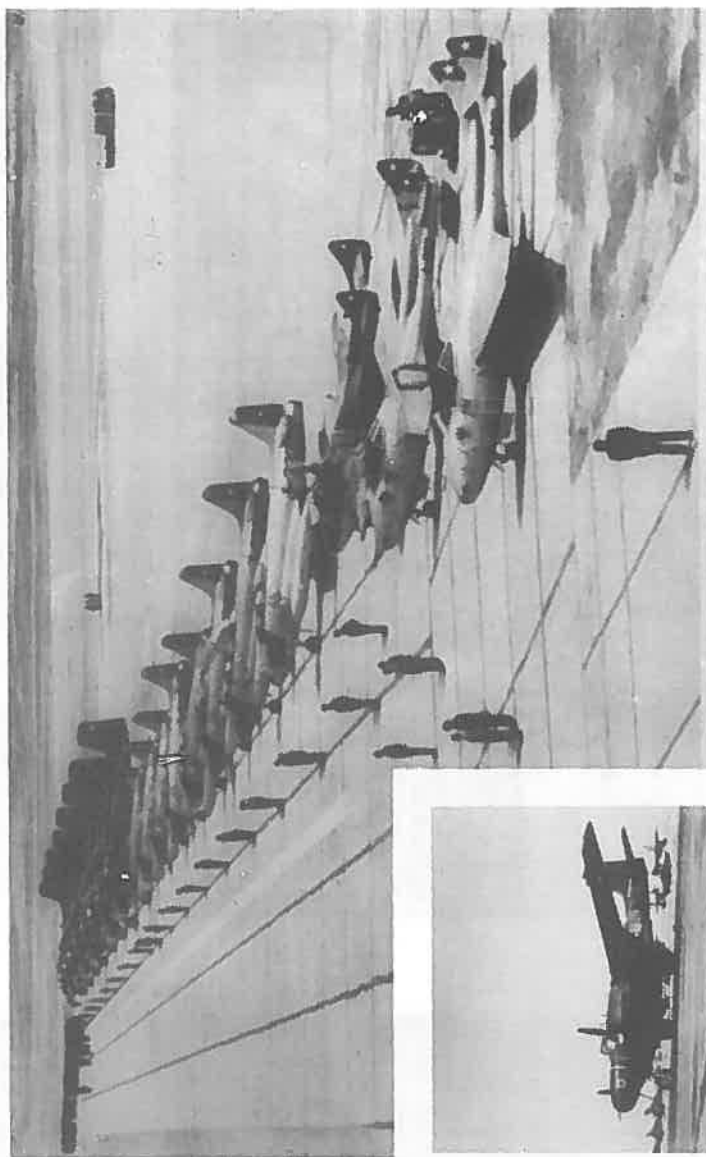
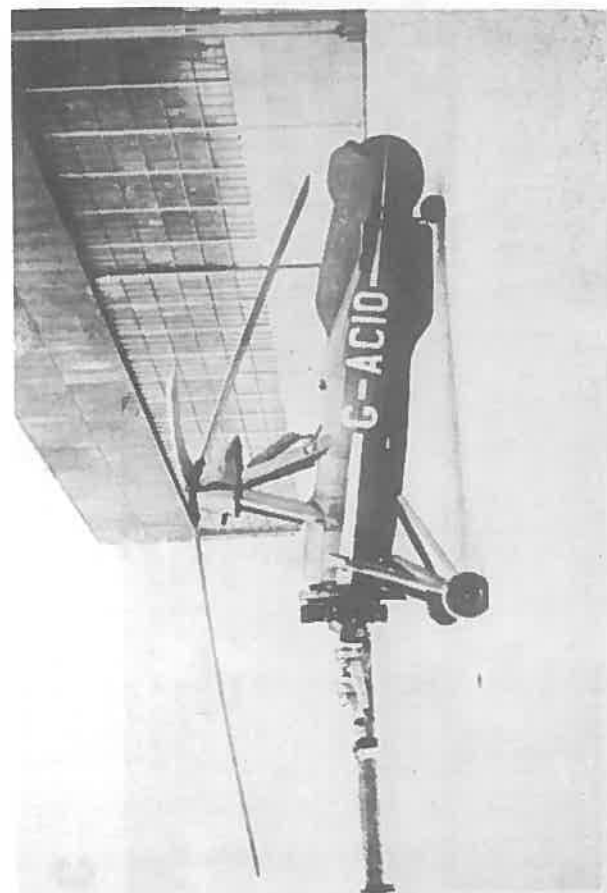
"(2) Regarding the Chilean B-25s, B-26s, and T-33As:

(a) REVISTA DE LA FUERZA AEREA DE CHILE is not exempt from errors (is anyone?), and I would generally accept their figures but for the following: The presence of an additional batch of B-26s in Lima, Peru on 30 April 1965. They were described by a Lima radio station as part of 'a new batch recently acquired by Chile'. These a/c attracted quite a bit of attention, particularly when one was w.o. while taking off.

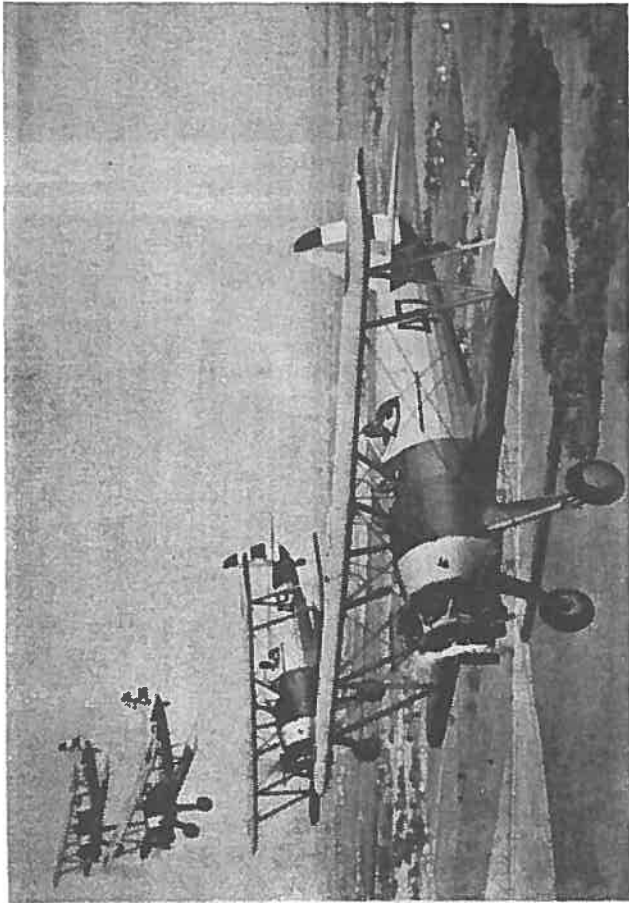
(b) Official Chilean publications refer to the 'Invaders' used as B-26Cs and B-26Ds, further stating that at least two of the so called B-26Cs were former QB-26.

(c) PUCARA includes in its files photos or clippings of all the FACH B-26s in the 813-846 range, as well as one serial which has puzzled us - 863! One of our Chilean contacts, Sergei S., has reported that there were indeed aircraft bearing s/n 847-862, but we have not been able to verify this ourselves. We have recorded the following accidents: 812 collided with 845 during an exercise on 16 Nov. 1962, 812 was w.o. and 845 was severely damaged; 823 w.o 21 Mar 1964 when its bombs exploded; an unidentified B-26 was w.o. at San Felipe 5 Dec. 1969; 844 was w.o. 9 Apr 1964; 838 severely damaged May 1962 - not re-

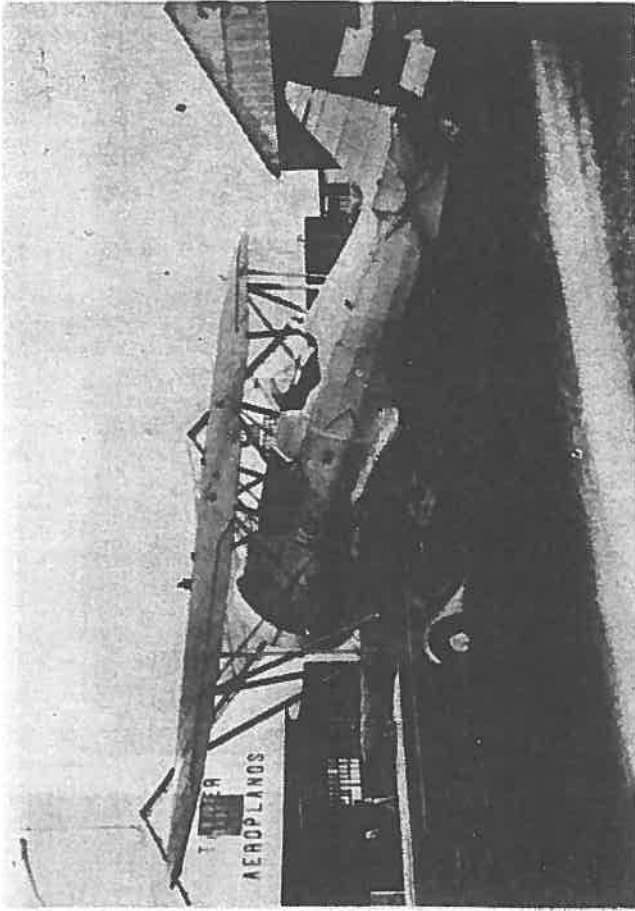
(Continued on page 123.)



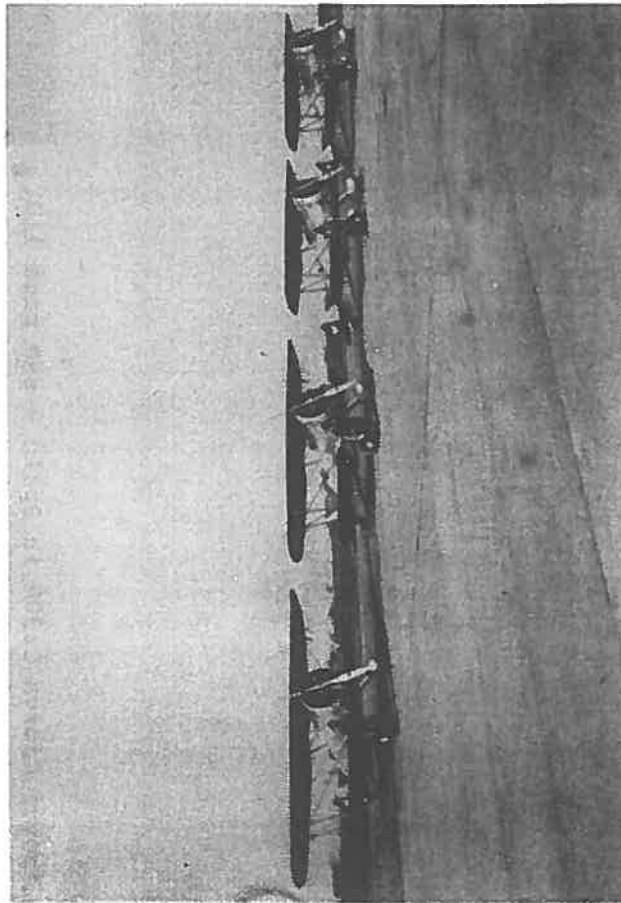
Above: Cierva C.30A in Spain - see page 110.
 (Archivo de Pucara)
 Right: Chilean aircraft - see page 123.
 (von Rauch Collection)
 Below: Ex-Chilean Albatros - see page 123.
 (Hagedorn photo)



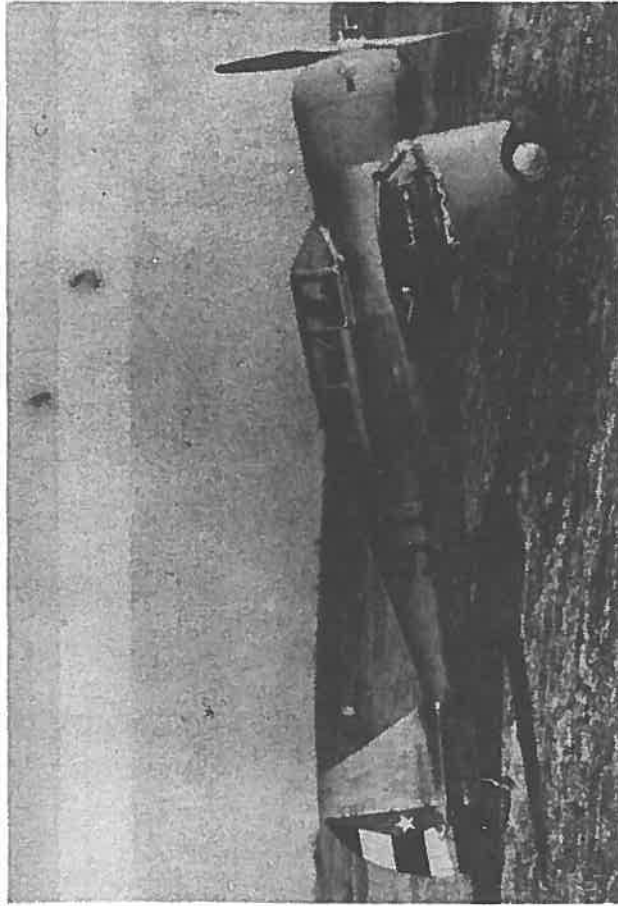
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b



c

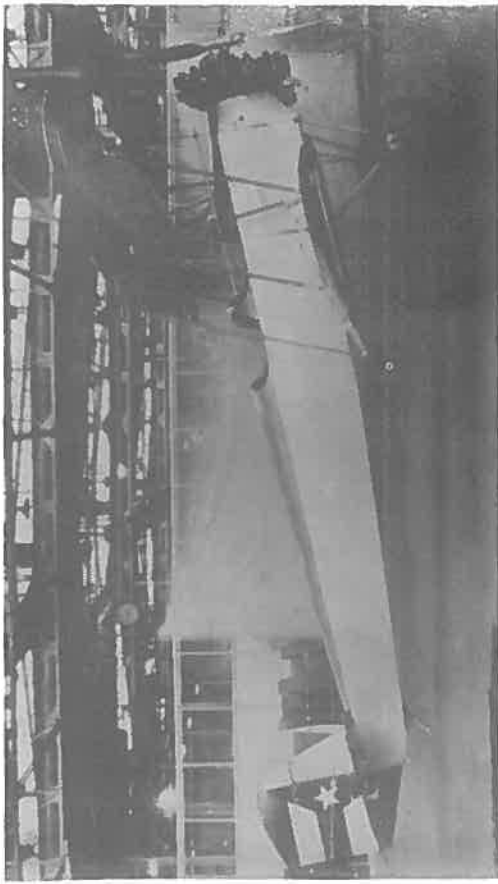


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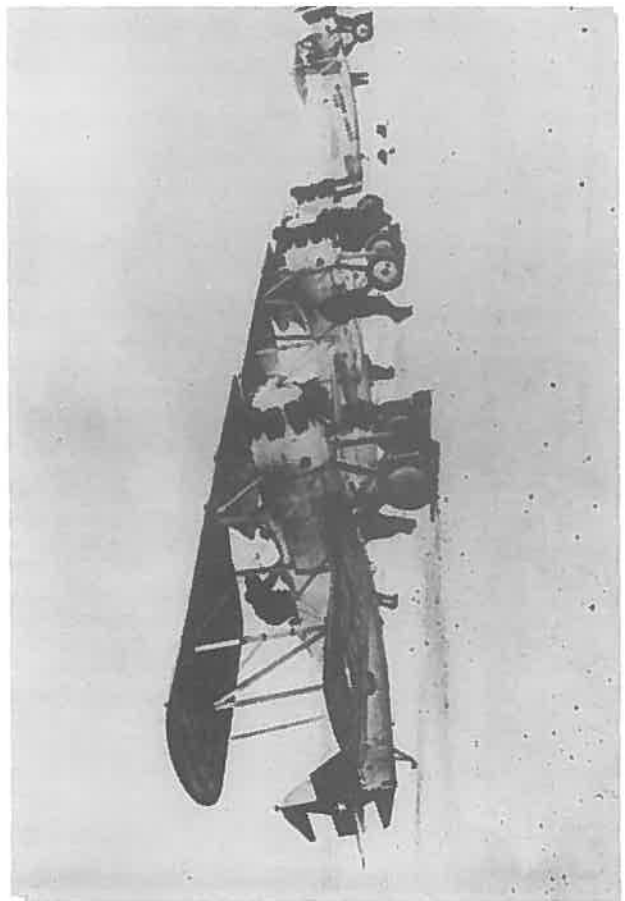
CUBAN MILITARY AIRCRAFT (See page 102 for captions.)



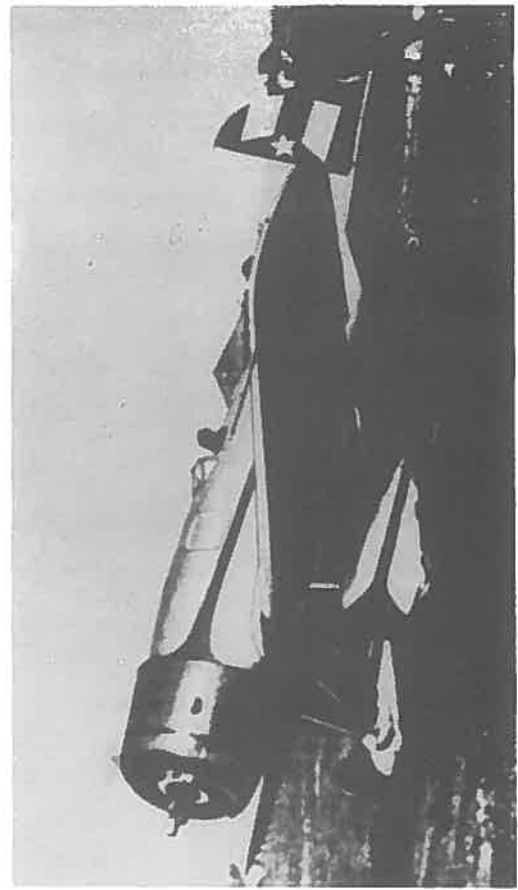
e



f



g



h

CUBAN MILITARY AIRCRAFT (See page 102 for captions.)

THE WORLD OF JUNKERS

PART III

THE JUNKERS G.23/G.24/R.42

The first G.23 tri-motor airliner flew in 1924. A total of 89 were built, including 39 of the improved G.24 version. Of these, 65 were produced/assembled by A B Flygindustri. Thirty-five of the Flygindustri aircraft were completed as bombers. They were designated R.42, changed to K.30 after 1927. The Soviet Union received 14 R.42s in 1925-26 plus 8 K.30s in 1928. Six were sold to the Chilean air force in 1926 and one to Spain in 1928. These aircraft could be fitted with wheels, skis or floats. The R.42 was also produced at Fili according to most sources.

Fig. 1: CH 132, a G.23 of Ad Astra Aero in Switzerland, spring 1925.

Fig. 2: Flygindustri-assembled G.23 used by a Junkers-sponsored Turkish airline in 1926. Unconfirmed reports about military Turkish G.23s and R.42s might concern this aircraft.

Fig. 3: S-505, Flygindustri R.42 demonstration aircraft, 1926. Note lowered "dustbin" gun position.

Fig. 4: J 5, one of the six Chilean R.42s. The national insignia is not clearly seen on the photo. It could be of the type shown in Fig. 5 (World's Aircraft Markings) or of the type shown in Fig. 6 (photographs of other aircraft). A photo in JANE'S AWA shows a Chilean R.42 with insignia that looks like Fig. 7.

Fig. 8: "4", a Soviet Navy K.30c in 1928.

Fig. 9: Wing of a G.24 presented to the Afghan king Ammanullah in 1928. It was to be used for airline service together with two F.13s, but nothing came of this. These aircraft finally ended up in the air force as trainers. The drawing is only a sketch, and I would like someone (perhaps Fritz Braun) to comment on the flag used by Ammanullah.

Fig 10: S-AABH, the K.30 delivered to Spain in 1928. It has not been possible to unearth any details of the fate of this aircraft after the official handing-over ceremony in Spain.

ADDITIONS AND AMENDMENTS to earlier parts (Part I in SAFO #18 and Part II in SAFO #19).

Fig. a. Corrected drawing of Finnish Ilmavoimat F.13ka JU-120.

Fig. b. Corrected drawing of Egyptian F.13. This aircraft was sent to Egypt by Junkers in 1926, but was not allowed to fly there.

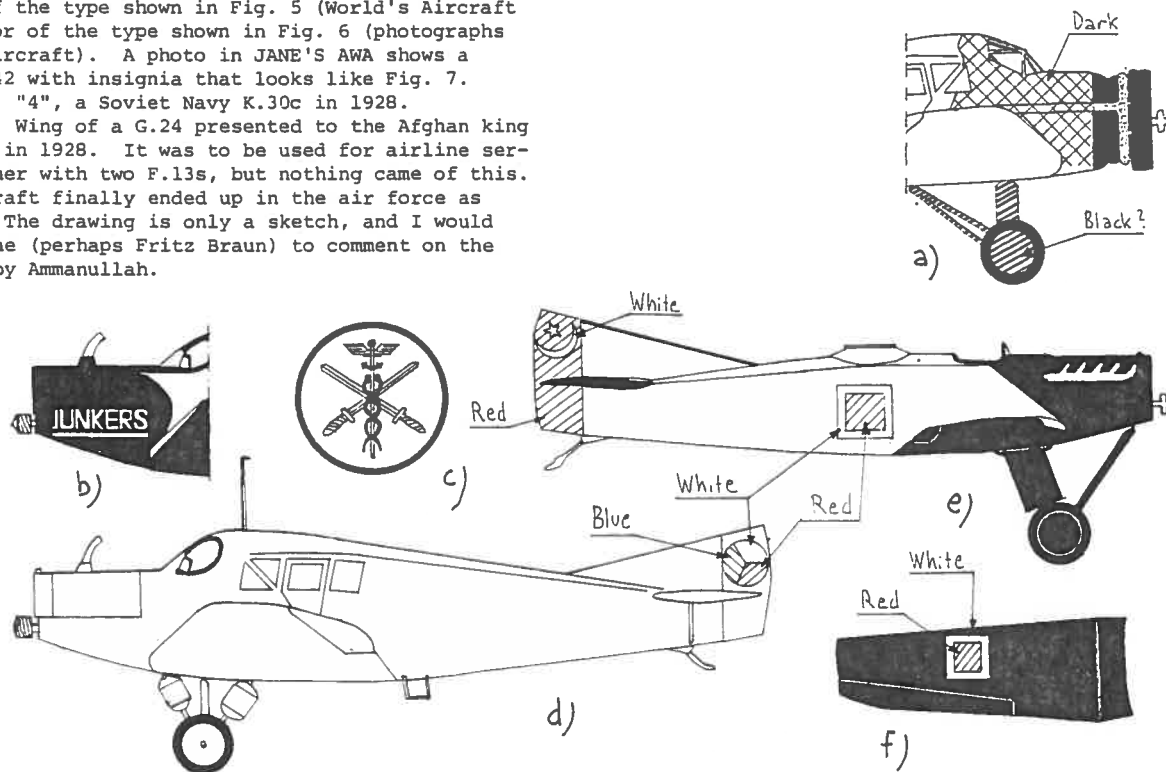
Fig. c. Detail of Finnish Coast Guard, "Merivartiolo", insignia.

Fig. d. F.13 tested by Czech Air Force in 1927. Source: Colour profile in LETECTVI + KOSMONAUTIKA.

Fig. e. Turkish R.02 in different colour scheme.

Fig. f. Wing of Turkish Air Force F.13, 1925.

Lennart Andersson (SAFCH #68), Liljeg 9A, S-752 34 Uppsala, Sweden.



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"Here are a few corrections/additions to the RDAF F-86D article in SAFO #19:

| | |
|---------|---------------------|
| 51-5952 | AL-C |
| 5971 | To ESK 726 16.02.59 |
| 5976 | AL-N |
| 5984 | AL-K |
| 6018 | AL-J |
| 6026 | AL-T |
| 6052 | AL-R |
| 6119 | wfu 17.07.65 |
| 8449 | wfu 12.08.64 |

Bjarne Sørresliig (SAFCH #145), Houlkaervej 32, DK-8800 Viborg, DENMARK.

"On page 55 of Vol. 5, No. 2, under 'Current New Kits', you reviewed the Testors/Italaerei RF-4 Phantom II. You state it can't be done as a "US recon bird because of minor fuselage details & bulged wings". However, it CAN be built as an RF-4C, the US Air Force version. It CAN NOT be built as a Marine RF-4B for the reasons you state. All the Marine/Navy F-4/RF-4's have narrow, high pressure tires for carrier landings. My knowledge comes from 4 years as a Navy photographer's Mate and 10 years in USAF aerial recce work including 2 years with the 38th TRS (2R), the subject of the European version of this kit." TSGT Nick Mertes, 2387E Mercury St., Hickam AFB, HI 96818.

MILITARY NOMADS

Fig. 1: A18-310, 1st Aviation Regiment, Australian Army Aviation Corps, 1980. Dark green - overall. Day-glo orange - fin and wing tips. White - "ARMY", serial number, blade aerial, and warning stripe. Red - propeller warning stripe. Black - propeller blades and spinner, and whip aerials. N.B. Roundels are in standard 6 positions and extra aerials are carried.

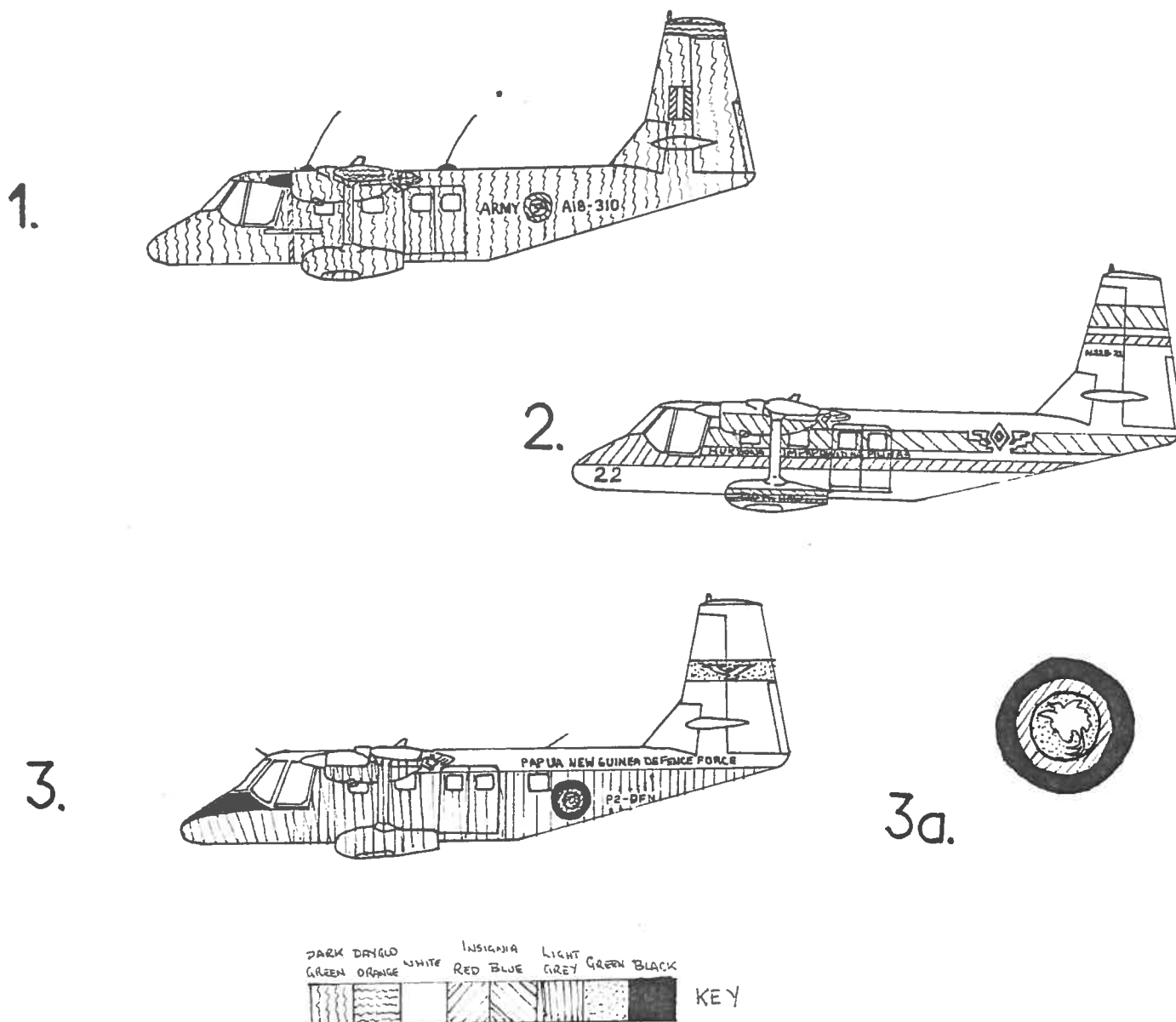
Fig. 2: N22B-22, 223 TAS, 220th HAW, Philippine Air Force, 1980. White - overall, spinners, outline on cockpit windows, and blade aerial. Blue - upper stripes on fin, fuselage, wheel housing, and lower half of engine nacelles. Red - all lower stripes. Black - "22" on nose, "N22B-22" on tail, "220th HAW" on wheel housings, and "HUKBONG HIMPAPAWID NG PILIPINAS" on fuselage. Insignia - red outlines outer white diamond, blue inner diamond, and blue outlined white stylized wings.

Fig. 3: P2-DFN, Papua New Guinea Defence Force, 1980. White - all upper surfaces, spinners, aerials, and outline around cockpit windows. Light grey - all lower surfaces and fuselage sides. Black - anti-glare panel, serial number, and "PAPUA NEW GUINEA DEFENCE FORCE". Tail stripe - green with stylized yellow bird.

Fig. 3a: Papua New Guinea Defence Force insignia. Roundels are black/red/green with yellow Bird of Paradise in the centre.

References: Philippine Air Force - Koku Fan 5/81.
Australian Army - personal photographs.
Papua New Guinea DF - Military Technology Vol. VI, #17, 1980.

Compiled and drawn by: Mike Mirkovic (SAFCH #465), 11/32 Curlewis St., Bondi, N.S.W. 2026 Australia.

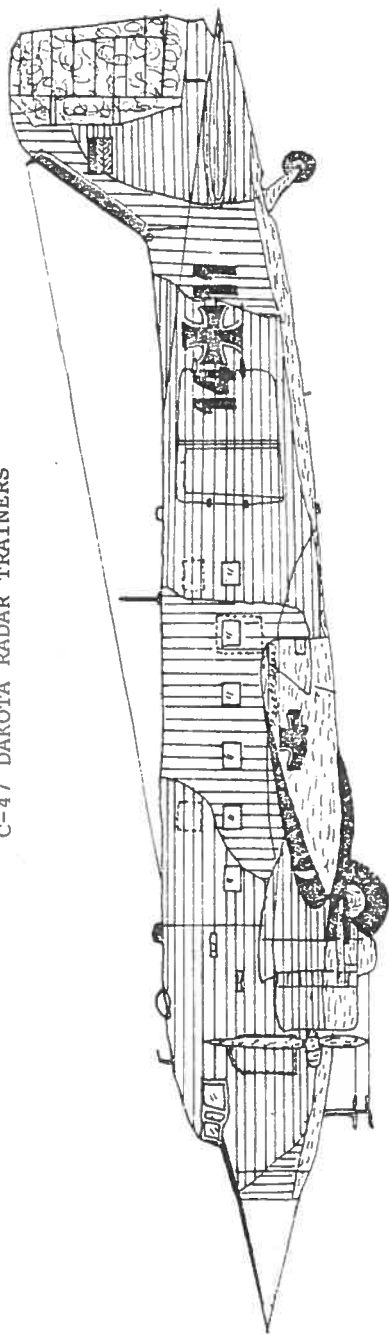


KEY

Not to Scale

SAFCH #465

C-47 DAKOTA RADAR TRAINERS



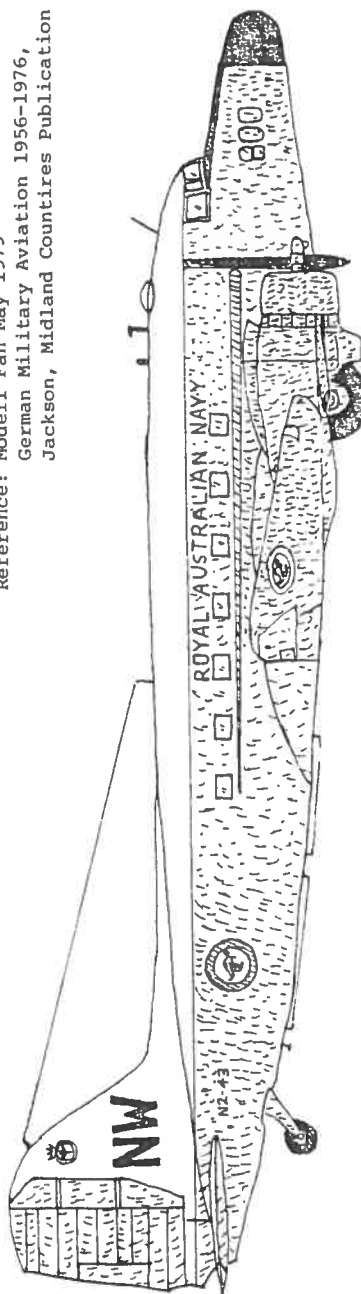
C-47 NASARR 14+11 FVS+61 WEST GERMAN LUFTWAFFE 1976

White outline around fuselage codes and crosses.
 Yellow outline around forward door and emergency exits.
 No propeller warning stripes on fuselage.

s/n 44-77220 c/n 33552

Reference: Modell Fan May 1979

German Military Aviation 1956-1976,
 Jackson, Midland Counties Publication



C-47 N2-43 (Ex A65-43) VC 851 FAA/RAN HMAS ALBATROSS NAS Nowra, NSW

This aircraft is now part of the Fleet Air Arm Museum, Nowra, NSW.

Propeller blades black with white/red/white tips.

Red warning stripe around fuselage.

All codes & serial numbers - black.

ROYAL AUSTRALIAN NAVY - red.

Fuselage stripe - blue.

Reference: Aviation Historical Society of Australia Journal Vol. 14, No. 3, 1973.

| | |
|--|----------------|
| | Dayglow orange |
| | Light grey |
| | Insignia red |
| | Yellow |
| | Insignia blue |
| | Silver grey |
| | Natural metal |
| | Burnt metal |
| | Olive green |
| | Black |
| | White |
| | Medium grey |

OMANI UPDATE

| Omani s/n | English s/n | Factory s/n | c/n | d/d | Remarks |
|---------------------------------|----------------|----------------|--------|---------|---|
| Hunting Provost T.52 | | | | | |
| WV452 | | | | | Also reported as WW452 |
| DHC-2 Beaver | | | | | |
| 213 | XR213 | G-5-11 | 1447 | 30-3-61 | Taken on charge 14-4-61 |
| 214 | XR214 | | 1460 | 6-6-61 | Taken on charge 14-7-61 |
| 215 | XR215 | | 1471 | | |
| 216 | XR216 | | 1481 | 20-9-61 | Taken on charge 9-11-61 |
| 217 | | | 1012 | | ex N1397N |
| BAC-167 Mk.82 | | | | | |
| | Mk.82A | | | | 401 to 412 ordered 1967 413 to 424 (8 ordered 1972, 4 ordered 1974) 402, 404, 407-409 reported to Singapore as 327-331 resp. 405 w/o |
| 420 | | G-27-222 | 326 | 18-7-73 | |
| 421 | | G-27-250 | 351 | 76 | |
| 422 | | G-27-251 | 352 | 76 | |
| 423 | | G-27-252 | 353 | 76 | |
| 424 | | G-27-253 | 354 | 76 | |
| Douglas C-47 | | | | | |
| 501 | | | 26977 | | Ex D-CWSF/CA016/GR018/KK199/43-49716, wfu |
| 502 | | | 13478? | | |
| Vickers Viscount | | | | | |
| 501 | | | 435 | | Type 816, ex N40WA, N40N, VH-EQP, A-6-435, VH-TVR; to 3D-ACM |
| 502 | | | 436 | | Type 816, ex N40NB, EP-MRS, VH-EQQ, A6-436, VH-TVS; to 3D-ACN |
| 503 | | | 342 | | Type 814D, ex G-AZNH, D-ANUR |
| 504 | | | 343 | | Type 814D, ex D-ANEF; crashed 28-2-72 |
| 504 | | | 423 | | Type V808, ex D-ADAM, EI-AKL (yes two 504's); to 9Q-CBS |
| 505 | | | 421 | | Type V808, ex D-ADAN, EI-AKO, EI-AKJ; to 9Q-CBT |
| 506 | | | 175 | | Type V803, ex G-AYTW, EI-AOL, PH-VID |
| DHC-4 Caribou | | | | | |
| 801 | | | 293 | | |
| 802 | | | 294 | | w/o ? |
| 803 | | | 295 | | |
| 804 | | | 40 | | Ex HC-AVJ; to C-GVGX 22-10-77 |
| 805 | | | 23 | | Ex HC-AVY; to C-GVGW 3-11-77 |
| Short Skyvan 3M | | | | | |
| 901 | G-AYDP | G-14-51 | SH1879 | | Series 400-4 |
| 902 | | G-14-47 | 1875 | | " |
| 903 | G-AYCS | G-14-48 | 1876 | | " |
| 904 | | G-14-49 | 1877 | | " |
| 905 | | G-14-50 | 1878 | | " |
| 906 | | G-14-52 | 1880 | | |
| 907 | | G-14-67 | 1895 | | Series 400-4 |
| 908 | | G-14-68 | 1896 | | " |
| 909 | | G-14-71 | 1899 | | w/o Dhofar 17-9-74 |
| 910 | | G-14-72 | 1900 | | |
| 912 | | G-14-38 | 1866 | | Series 200-21 |
| 916 | | G-14-112 | 1944 | | G-14-111 is reported ST-MAM Mauritania (SH-1943) |
| 917 | | | | | |
| Britten Norman BN2A-21 Defender | | | | | |
| 304 | | | | | w/o 3-8-76 maybe the same as mentioned in the article |
| 303 | G-BCEM | | 402 | | |
| 308 | G-BCMV | | 418 | | |
| Bell AB-205A | | | | | |
| 702 | | | 4165 | | |
| 703 | | | 4166 | | |
| 704 | | | 4167 | | |
| 705 | | | 4168 | | |
| 706 | | | 4169 | | |

| | | |
|--------------------|----------|--|
| 709 | 4191 | |
| 710 | 4174 | Crashed 2-5-79 at Marakhir |
| 711 | | Crashed 3-4-79 |
| 725 | 4343 | |
| Bell AB 206A | | |
| 601 | 8237 | |
| 602 | 8238 | |
| 603 | 8246 | |
| 604 | 8247 | |
| Bell 214A | | Reported as 751 to 755 |
| Jaguar | | |
| 201 | G-27-278 | 177 7-3-77 Set No. PS-OB-1 |
| 202 | G-27-280 | 189 " PS-OS-1 |
| 203 | G-27-279 | 195 27-6-77 PS-OB-2 |
| 204 | G-27-281 | 202 " PS-OS-2 |
| 205 | G-27-282 | 210 26-9-77 PS-OS-3 |
| 206 | G-27-283 | 211 " PS-OS-4 |
| 207 | G-27-284 | 218 7-11-77 PS-OS-5 |
| 208 | G-27-285 | 219 " PS-OS-6 |
| 209 | G-27-286 | 223 6-2-78 PS-OS-7 |
| 210 | G-27-287 | 224 " PS-OS-8 |
| 211 | G-27-288 | 225 9-5-78 PS-OS-9 |
| 212 | G-27-289 | 226 " PS-OS-10 |
| PC-6B Turbo Porter | | |
| A40-AK | | Police Wing |
| A40-AL | | " |
| FFA AS202-18A | | |
| A40-AY | 028 | Royal Flight |
| A40-AZ | 027 | " |
| Bell AB 212 | | |
| A40-AE | 5549 | Royal Flight |
| Bell 212B | | |
| A40-AC | | Royal Flight; also reported as 101/102 |
| ? | | " " |
| Mystere 20 | | |
| A40-GA | 285 | Ex A40-AA |
| VC-10-1183 | | |
| A40-AB | 820 | Royal Flight; ex G-ASIX |
| Gulfstream 2 | | |
| A40-AA | 183 | Royal Flight |

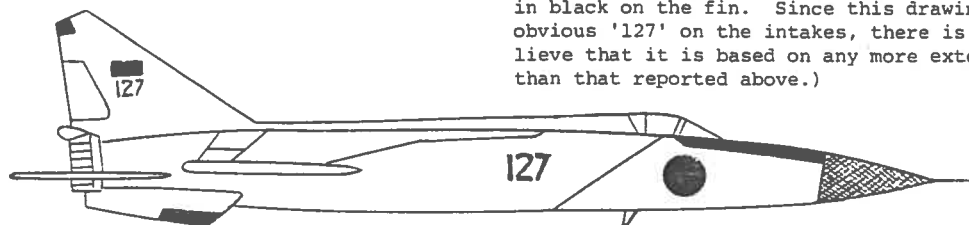
A list of Omani aircraft first appeared in SAFO #15. Additions and corrections have been supplied by J. Lappin of Paisey, Scotland and Tim Liu (SAFCH #478) of Bournemouth, England. Further corrections and additions should be sent to Fred Bachofner, Johan V. Westerweelstraat 6, 3132 BC Vlaardingen, the Netherlands. Please note that this is a new address for Fred.

-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-

"LIBYAN MiG 25: Aircraft markings from Aviation Week March 16, 1981. The photo shows one AA-6 missile on the outboard launch rail. No upper or lower surfaces are visible. No colors are noted. I suspect that the overall color is light grey. The a/c number may be red as the tone of the number and fin flash is the same. No outline for the number is visible, but then the photo is very 'grainy'. By way of comparison with the Air International MiG-25 article of November 1979, this a/c has

no transponder aerial (leading edge of starboard fin) and no UHF aerial is visible aft of the canopy. The UHF aerial below the cockpit shows clearly in the Aviation Week photo, but appears only on recon and trainer versions in Air International." R. Lamar Fenstermaker (SAFCH #501), 6114 15th Ave. SE, Lacey, WA 98503.

(Editor's note: The same photo appears in Air International April 1981 along with a color drawing of '127'. The drawing shows an overall light grey a/c with '127' in black on the fin. Since this drawing omits the very obvious '127' on the intakes, there is no reason to believe that it is based on any more extensive research than that reported above.)



L A T I N A M E R I C A N C O M B A T A I R C R A F T

To help keep the information coming in, Nick has a suggestion:

ings based on the clipping to send to any member needing information. Anyone interested in helping to get this clipping file started, please contact me to let me know what sources you have. I'll let you know if this source is already covered; this will prevent duplication.

"In the near future, I plan to do several major features for the SAFO, including the B-26 Invader, the A-37, the F-86, the Meteor, and others, along with quite a few short art-only pages. Any member with information, photos, or rough drawings are urged to contact me to assist in keeping this series going. Full credit will be given.

"Being in the service (Navy), I move around quite a bit. I will be at the address below until Dec. '81, and then I will be moving to Hawaii for four years.

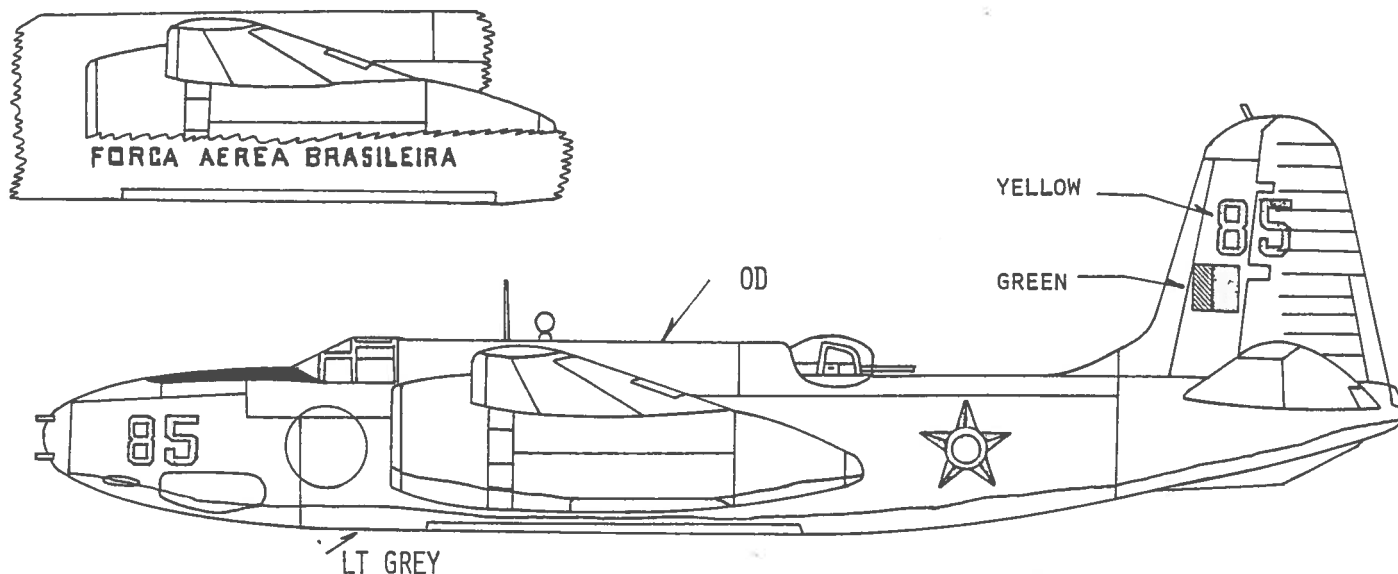
"I hope to hear from many of you."

N.J. Waters III (SAFCH #2), 330 Allen St., Norfolk, VA 23505 or N.J. Waters III Isl, OZ Division, USS Saipan (LHA2), FPO New York. 09549.

A-20'S IN BRAZIL

PROBABLE DK EARTH

DRAWING BASED ON A B&W PHOTO. SCHEME APPEARS TO BE DK EARTH OVER SAND (SIMILAR TO USAAF NORTH AFRICA SCHEME) NUMBERS IN YELLOW, RED PROP WARNING STRIPE. NATIONAL INSIGNIA IN FOUR POSITIONS.



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DJIBOUTI

Many changes has occurred in the Djibouti Air Force since my first article appeared in SAFO #15. They have even changed the name from Armee de l'Air de la Republique de Djibouti to Force Aerienne Djiboutienne. The national insignia has also been changed; the original roundel (diagram A) was replaced in late 1979 by the roundel shown in diagram B.

The aircraft shown in the October 1979 issue of National Geographic (Nord N2501 Noratlas, number '106', code 'JD') was loaned to Djibouti by the French Government on 27 March 1977. This aircraft had formerly served with ETOM 88 (Escadron Transport Outre-Mar 88) and the code 'JD' was an ETOM 88 marking. This aircraft carried the original Djibouti roundel and was returned to the French after being in Djibouti service for 85 weeks. In late 1978, a second Noratlas, number '147' code 'JN', was also loaned to Djibouti.

On 5 September 1979, the Djibouti Air Force officially received its first aircraft when 'JN' was transferred to control of the FAD. A second Noratlas, number '150' code 'JM', was received shortly thereafter. Both 'JN' and 'JM' carried the second Djibouti roundel. When 'JN' was thrown on the scrapheap, the French gave the

FAD a third Noratla, number '37' code 'AC'. This was the first Noratlas to carry a FAD code.

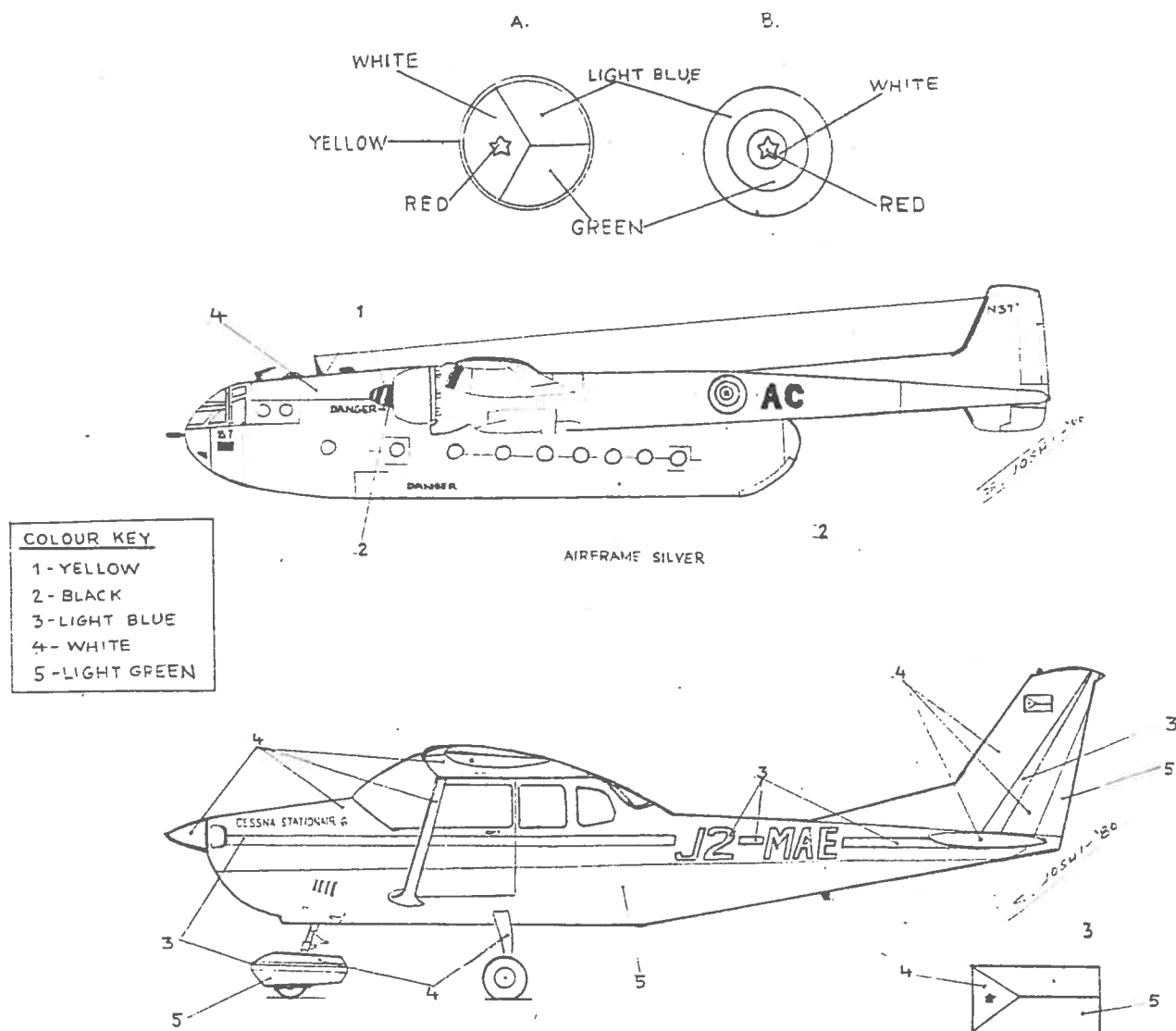
On the same day that the FAD officially took over Noratlas 'JN' (5 September 1979), it also received its first helicopter, an Alouette II, number '75' code 'JI'. This code was later changed to 'AB', and the new roundel applied.

Two other aircraft are on the Djibouti register: J2-MAD is a Rallye 235GT that rejoined the air base in Djibouti. J2-MAE is a Cessna Stationair 6, which was delivered by Reims Aviation on 19 March 1980.

The delivery of two new aircraft is awaited. The first, a Boeing 737 will be used by members of the Government of Djibouti. The second, offered by Saudi Arabia, is a Dassault Mystere 20, code J2-MAA, which will be reserved for the head of state, President Hassan Gould Aptidon.

At present, the FAD has five aircraft. This will soon be increased to seven. Will they get fighters? Ground attack? Airplanes like the Mirage or Alpha Jet? Only time will tell.

Tor A. Scott (SAFCH #403), 168 59th Ave., Chomedey, Laval P.Q., Canada H7V 2B8. (Drawings by Sunil Joshi.)



MILITARY WINGS Volume Two by Brendon Deere. Soft cover. 104 pages (17 by 24 cm) including 176 photos. Published by Aero Publications of NZ, PO Box 271, Marton, New Zealand (1980).

The first volume of this series was reviewed in SAFO #18 and is now out of print. The second volume follows the identical format of the first - one page of text followed by a full-page photo and then a collection of half-page photos. The a/c covered in this volume (and the number of photos of each) are: Avenger (23), Catalina (23), Dauntless (21), Havard (29), Hercules (25), Hudson (25), Strikemaster (15), and Tiger Moth (17). As with the first volume, the selection of photos is outstanding; all of them are of a/c in RNZAF service and most of them are new to this reviewer. The photo captions are generally informative and some are down right refreshing, e.g., "An interesting view of a Hudson in a 'jungle clearing' in late 1942 or early 1943. The photo was taken for publicity purposes and it seems more likely to have been 'posed' at Whenuapai."

In the review of Volume One, I expressed disappointment over the slight amount of text devoted to RNZAF service of each a/c. The present volume is greatly improved in this area, probably because of the "additional research" by David Duxburg. The amount of history presented is close to the maximum advisable for a book of this type, and is consistent with the purpose the author states in his Introduction: "As with that first book I stress that intention is only to present a limited introduction and it is hoped that books by authors far more worthy than I will be published covering individual aircraft types in the depth they deserve."

A peculiar thing: While my copy contains 104 pages and 176 pages, the cover announces 205 photos and the Contents lists a chapter on the Ventura starting on page 108. I may have received an incomplete copy, but I suspect that economic realities forced a shortening of the book, and someone forgot to make the necessary changes.

Even without the chapter on the Ventura, this book would make an excellent addition to any 'small air force' library, and it is enthusiastically recommended. As with the first volume, MILITARY WINGS Vol. 2 is available from Graham Turner, 7 Eldorado Road, Cheltenham, Gloucester, UK. At the time of going to press, the price is not yet available; you can either write Graham for a quote, or wait an announcement in the next SAFO.

Review copy graciously provided by the author.

SOUTH AMERICAN AVIATION NEWS formerly MANCHE.

Recently, I received a sample copy of the South American Aviation News (SAAN) from their editor. Since the SAAN should be of great interest to many SAFO readers, I immediately wrote back suggesting a regular exchange of magazines so that abstracts of SAAN can appear in each issue of SAFO. While awaiting their reply, a detailed review of the issue on hand is in order.

SAAN #29. Twenty 16.5 by 22 cm pages including 26 photos. Content: "Trans Brazil. The First Twenty-Five Years - Part I", 3 pages including "Complete Fleet" (17 a/c), 5 photos (DC-3's PP-ASJ, -ASS, -ASP, JT-ADE, and C-46 PP-SLK). "A Short Bibliography on Brazilian Aviation - Part I", one page with short descriptions of 15 books most "out of print" or in "limited numbers".

"The History of the 'Esquadrilhas de Reconhecimento e Ataque' - Part I", 4 pages including 3 photos and a two-page 'center fold' of camouflaged FAB AT-6D's. "The Chilean Civil Aircraft Register. Notes on Individual Series", 2 pages including 6 photos (C-46 CC-CAC & CC-CCP, DC-6B CC-CCI, Aztec CC-CFM, Lockheed L-60 CC-PEQ, and F-27A CC-CBP. "Registers" one page cover Uruguay CX-AHA to AHZ and Argentina LV-HIA to HIZ. "Embaer EMB-110 Bandeirante: Corrections & Additions to Manches 21 and 23, Part I", one page. "PP-VRG: A Braze Warrior", the story of the first production DC-3 including a page of text and a page with photos of c/n 1545 as NCL6009 with American Airlines, PP-SQH with VASP, PP-ANU with VARIG, and PP-VRG on display at VARIG's Museum.

Other photos of interest include: Aerotec A-132 Tan-gara FAB YT-17 "1000", Lockheed P-38L LV-HIX, North American B-25 FAB "5133" on display at Academia da Forca Aerea.

The SAAN is published 6 times a year and a subscription can be obtained by "sending £7.00 or US\$15.00 (cash money) to the Editor, MARIO B. DE M. Vinagre, Caixa Postal 5216, 09720 Rude Ramos, Sao Paulo, Brazil, or by sending Money Order or Cheque payable in London to the following account: L.C. SARAIVA, Account no. 30813230, BAR-CLAYS BANK LTD., Upper Norwood Branch, 61 Weston Hill SE19 1TU. ENGLAND. If you opt to send your dues through the London account do not forget to enclose proof of your payment when writing to the Editor about your subscription order."

Back issues of Manche and SAAN still available are: 7, 8 (limited stock), 10-17 (short supply also), 18-28. Price £1.00 or US\$2.00 each, including airmail delivery, except for issue 21 which costs £4.00 or US\$8.00 (special Bandeirante monograph). Order same as for subscription. Abstracts for MANCHE #7 through #22 appeared in SAFO #16.

MANCHE POSTCARDS.

The former editor of MANCHE, Denir Lima de Camargo, writes: "After five years of publishing magazines and books about general aviation, we are starting a new work with the publication of airplane postcards. Our intention is to publish postcards exclusively of planes from Brazil, Uruguay, Argentina, Chile, Paraguay, and Bolivia. All postcards will have an English text. Since we are postcard collectors, our product will be published with the interest and needs of the collector foremost; besides careful selection of planes, we will include a code with letters and numbers for each type, and each postcard will have the print date and the date when the picture was taken. To begin with, we have programed three different series: EM - planes produced by Embraer, BR - planes with Brazilian registration, EA - planes with South American registration."

An advertisement in SAAN #29 announces that the first batch of MANCHE POSTCARDS, eight color photos of South American airliners, is available. The only price mentioned is an introductory price of US\$2.00 good only until 30 May 1981. While it is too late to take advantage of this price, this advertisement does verify that these postcards are now available and it does give some indication of the price. For further information, write to MANCHE POSTCARDS, PO Box 1346, 01000 Sao Paulo, Brazil.

"You might discreetly pass on the fact that the Badger Airbrush Co.'s small salesroom at the factor on 9128 W. Belmont Ave., Franklin Park, IL 60131 sells rebuilt air compressors suitable for the model 350 etc. which put out 25-30 psi for about \$30 for the cheapest model that does not include a constant-pressure tank or on/off switch. The same model goes for about \$90 new. The phone number is (312) 678-3104.

"If one sent Badger a check marked 'Not to exceed forty dollars' to be filled in at the factory, they would ship one of these rebuilt compressors, but as there are a limited amount of returns, too much publicity might ruin the bargain, which Badger does not advertise.

"Please put an ad in the next issue asking if anyone wants to sell me a Mattel vacuum machine. I have been looking for one for almost ten years."

Tom Sarbaugh (SAFCH #497), 25 Roble Rd., Berkeley, CA 94705.

"The RNZAF has recently purchased three Cessna 421C Golden Eagle twin-engine light aircraft for 42 Squadron. Serials are NZ7940-3. They have also ordered 3 Boeing 727-100C for 40 Squadron to supplement its C-130H's." Mick Mirkovic (SAFCH #465), 11/32 Curlew St., Bondi, N.S.W., 2026 Australia.

(Continued from page 110.)

paired; 812 w.o. June 1966; 824 was a B-26B; 832 was also reported as a B-26B; 824 plus several others derelict at Cerro Moreno late in 1974; 846 has been donated to the Confederate Air Force which will reportedly fly it in the colors of the FACH. (The FACH has provided details of the appropriate color scheme.)

(d) Lockheed T-33A; first four dd 18 Oct 1956 in a direct flight from Marietta, GA, to Santiago. Four additional machines obtained under MDAP May 1964. Additional quantities at an undetermined date. One of the initial s/n was J-24, but all machines received s/n's in the '300' range. Photo evidence exists for J-315 through J-328, although the last two aircraft (J-327 and J-328) are actually RT-33As. Additional s/n's noted post 1972 are J-350 (another RT-33A), J-360, plus one not verified but reported as J-351. All T-33As were S.O.C. during 1974, mainly because they were spareless. J-317 has been preserved at Bahia Catalina.

(e) B-25J: The complete serial range for the 12 FACH machines was 800-811.

I am enclosing two photos which might prove of some interest: A line up of FACH B-26s, F-80Cs, T-33As, and Vampires neatly lined up for a Presidential review during an exercise known as 'Centinelas del Desierto' held late in 1966." (Photos on page 111.)

Georg von Rauch (SAFCH #536), PO Box 1365, Highland Park, NJ 08904.

"A few comments on 'Chilean Naval Aviation Since 1919' which appeared in SAFO #19:

"Avro 504's s/n C-100 & C-101 were Chilean Army aircraft. Further, I would like to see substantiating proof that Chile received any 504J's, either Army or Navy. It is virtually certain that the Navy only had the three 504L's & six 504-O's (s/n's of the 504-O's were 82-87; one 504L is suspected to have been s/n 78).

"Horst made no mention of the at least 10 Aerospatiale SA319B Alouette III's used by the Navy since August 1977 (c/n 2297, 2312, 2322, 2332, 2342, 2353, 2362, 2368, 2369, 2370) known s/n's including 60, 62 & 65. Perhaps these and some of the other types not mentioned were covered in the earlier piece cited in the introduction.

"What is a Beech D-18H? Possibly a Model H-18S? Unlikely, as these were tricycle geared. S/n 102 was c/n 1019.

"It appears that most, if not all, of the Navy Mentors were ex-USN T 34B's & not ex-FAC B45 Mentors as was previously reported. One, 206 (ex BuAl40829) carried unit identification codes 'VT-4' circa 15Mar74, similar 'unit' markings appearing now on other Naval aircraft.

"Bell reports the first three 47G's dd as A-001 to A-003 (c/n 1289-1291) 23Sep54. Later became N-01 to N-03. N-04 was c/n 1687 dd 17Oct56, N-05 c/n 1688 dd 17Oct56, N-06 & 07 were 47G-2A's c/n 2726-2727 dd 9Nov62.

"Bell 47J s/n as Horst shows them are suspect. Known machines were: 47J c/n 1725 dd 11Oct57 quoted by Bell as s/n 13; 47J-2 c/n 1842 dd 8Sep61 given by Bell also as s/n 13 (a replacement?); 47J-2 c/n 1841 dd 8Sep61 given as s/n 14; 47J-2A c/n 3716 dd 18Aug66 (assumed s/n 15?); 47J-2A c/n 3724 dd 9Sep66 (assumed s/n 16?).

"Bell 206A's were c/n 494-497 dd 5-11Jun70.

"No mention made of C-47's 121-124 & 127. In service as early as 1969 & as late as 1977.

"No mention of EMBRAER EMB-110C's s/n 107-109 dd Aug76 (c/n 110101, 102, 108).

"No mention of EMBRAER EMB-111N's 261-266 c/n 110147, 150, 154, 158, 162, 166 dd in 1977.

"Fairey IIIF's were Mk.I's c/n F.976-979. One other (possibly Fairey Seal c/n F.2117?) was s/n 27. At least three other IIIF Mk.IIIB's were acquired by Chile (probably ordered by the Navy but not dd prior to the takeover by the Air Force) as s/n 1 to 3 including c/n F.1514, but this leaves the reported two other Fairey Seals c/n F.2116 and 2117 up in the air.

"Not mentioned is Piper PA-31-310 Navajo s/n 115 c/n 31-733 dd 8Jul71.

"The Felixstowe F.2a may also be referred to, I believe, as a Short F.2a. The a/c was christened as 'Guardiamarina Zanartu' on 3Mar21.

"Sikorski HSS-1/SH-34J's were dd 1965 as s/n 51-53 ex-BuAl50730-150732. S/n 51 now gate guardian at El Belloto while 52 became instructional airframe at the same base, s/n 53 wfu 1980.

"It now appears that Chile received a total of three Sopwith Baby floatplanes, of which only one (N2103 RAF) went to the Navy. The other two, oddly, went to the Army.

"The Supermarine Channel II's were dd 19Jan23.

"Additionally, it now appears that the ex-Carabineros Swearingen SA226 Metro's CC-ECC, ECD, ECL & ECN (c/n TC211EEEE, TC212, TC213 & TC214) saw at least limited service with the Navy as they were recently advertised as being for sale by that service.

"Finally, the single Vickers Type 102 Valparaíso acquired by Chile in 1925 may have been evaluated by the Navy but probably ended up in Army hands.

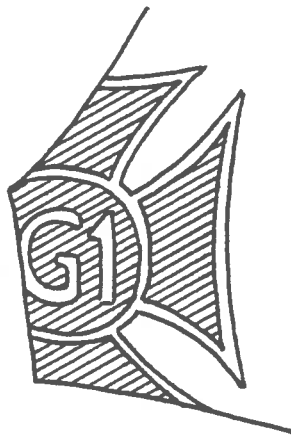
"Regarding the FAC HU-16's, I challenge IEHA to produce photos of FAC 572-574, as only six Albatross's were acquired (three SA-16A-GR in 1958 ex 49-097, 099, 100) and three HU-16B's Oct63 (ex 51-014, 024, 7191). At least three of these were reconditioned to ASW configuration by Grumman later, and may have been re-serialized, but I doubt it. One was donated to the Confederate Air Force in Oct79 (photo enclosed), ex-FAC566 (formerly USAF 49-097) which became N8064N. This aircraft is now, for some reason, in Florida." (Photo on page 111.)

Dan Hagedorn (SAFCH #394), 1300 Briar Cliff, Apt 131, Bryan, TX 77801.

"I'm sending along a rather interesting photo of a Bolivian Aviacion Militar Curtiss Hawk II taken during the closing stages of the Chaco War. It is photocopied from a rather difficult to obtain book I have. Needless to say, the point of interest is the insignia on the fuselage side, which I haven't a clue on. I don't know how well it would reproduce in SAFO, but you are welcome to use it if you think anyone could help identify it."

Dan Hagedorn (SAFCH #394), 1300 Briar Cliff, Apt 131, Bryan, TX 77801.

(Editor's note: Copyright laws aside, to screen a photo that has already been screened is inviting trouble. The 'dots' superimpose to produce what physicists call an interference pattern. In everyday terms, you may get something that looks like the photos in a Russian book. Instead of taking a chance with the photo, I've included the caption, "El Sbtte. J.A. Vargas Soto dando instrucciones sobre manejo de ametralladoras en un avion de combate en la Base de Robore", sketched what can be seen of the insignia, and hope that someone can provide identification.)



"Included you will find a photocopy from the March 1960 issue of 'Air Pictorial' which depicts a rather elaborately-styled and detailed version of the national insignia carried on the tail of a Royal Khmer Aviation Douglas C-47. Also to be seen is a representation of a dancer or warrior in traditional costume, perhaps some kind of squadron badge, and the registration looks like '42-10' with perhaps more numbers or letters to be added. Maybe one of our readers can supply additional information." J.P. Strijbos (SAFCH 513), Julianalaan 79, 3722 GG Bilthoven, THE NETHERLANDS.

Editor's Note: A study of the Royal Khmer a/c insignia would make an interesting article for the SAFO, and perhaps one of our readers would care to put together a definitive history. In the meantime, here is what I find in the SAFCH files: In "Air Forces of the World" published in 1958, Green and Fricker show the Cambodian insignia as a white temple on a blue disk with a thin orange outline. This insignia, which I will call type A, is carried in the usual six positions and the tail is without markings. This book includes a photo of a Fletcher FD-25A in these markings. The outline is a lighter shade than the disk - consistent with an orange outline and a blue disk. No markings are carried on the tail.

A photo in "Profile #228" shows a Fi-156 with type A roundels. Again, the thin outline is a lighter shade than the disk, but now the roundel is carried on both the fuselage and rudder (and presumably on the wings). This same a/c is drawn in "Modelaire International" Vol. 2, No. 11, where the insignia is described as "red disk with white outline". I think that Tom Young made a mistake here.

"The Air Forces of the World" also has a photo of a MS-733 Alcyon with what, at first glance, looks like a type A roundel. However, the ring is darker than the disk. A color slide in the SAFCH files shows that this Alcyon has a roundel consisting of a white temple on a red disk with a thin blue outline. I will call this a type B roundel. As with the Fletcher, no markings are carried on the tail in either photo.

The most familiar Cambodian roundel consists of a white temple on a red disk with a blue outline that is much wider than for type B. This roundel, called type C, has been frequently illustrated. It appears on the T-28 in SAFO #17, on MiG-15UTI and MiG-17 in numerous publications, and on several decal sheets. In all photos that I have seen, these a/c carry no markings on their tails.

The Stoppel decals are a good representation of type B roundels, and the Microscale sheet provides the type C roundel. In the latter case, the blue outline is a little smaller than indicated in the photos.

The fun really starts when you start looking at photos of C-47s. The Air Pictorial photo that started all this is captioned in part "Hitherto, the fin has carried the white silhouette of a three-towered temple superimposed on a blue-orange-blue stripe or blue and orange roundel." The latter sounds like out type A roundel, but what about this blue-orange-blue stripe? In the photo, the temple appears to be on a rectangle of a single color; no stripes are discernible and none are mentioned in the caption. There is plenty of photographic evidence for stripes: Air Pictorial, June '67, has a photo of C-47 '76734' with type C fuselage roundel and horizontal dark-light-dark stripes on the rudder with a temple on the light stripe. Flight International, 24 June '72, has a photo of C-47 '6224' with the same markings. The SAFCH files contains a color slide of a Cambodian MiG-15UTI with type C roundels, but in the background is 11-14 '315' with no fuselage roundel but with a blue-red-blue rudder markings (with a white temple on the red stripe).

Flying Review, Sept. '64, has a color drawing of a C-47 with type C roundels on both the fuselage and the rudder. The tail number is in Cambodian script, and a drawing of a traditional warrior appears on the fin, exactly as in the 1960 Air Pictorial photo.

This should be enough to start a pretty good discussion.

"Except for the swept-wing a/c, the 3rd patch illustrated on p. 131 of SAFO #12 looks like photos I have seen of the Italian "Aviazione Legionaria" leaving Spain in 1939 aboard the 'Dulio'. At the top of the gangway a 'poster' was displayed depicting a string of I-16 'Moscas' being knocked down by a club (23rd Gruppo 'Asso di Bastoni', Ace of Clubs), wielded by a cockroach (16th Gruppo 'Cucaracha'), and as they come down they are being kicked by the Iron Leg of the 6th Gruppo (Gambia di Ferro). My conclusion is that the patch was probably issued to Italian 'Aviazione Legionaria' veterans. One of the photos is on page 45 of Chris Shores Aircam/Airwar 3 'Spanish Civil War Air Forces'.

"The Polikarpov I-153 (I-15ter) 'Chaika', and the Spanish Civil War: I have seen many sources that allege the I-153 served the Republic and quite a few models have been made of Heller's and Rareplanes' examples in Republican markings. One magazine even had Frank Tinker, US volunteer in the Republican AF, flying one and illustrated a Heller model in his a/c markings. Tinker flew the I-15 (ref. 'Mitos y Verdades', etc.). The earliest allegation I have of the I-153 in Spain is from Nov. '67 'Air Classics', photo p.63, of an I-153 supposedly shot down by the Italian ace, Adriano Mantelli. On the outside of the lower wing is a Red Star and also rails for the RS-82 rockets. The star is explained away by the a/c being flown by the 'all Russian 31st Group'. Also, the 'peasant' lady in the background looks suspiciously Slavic. Anyone who has read anything about the Russian involvement in Spain realizes that they went to ridiculous extremes to down-play their involvement, even to adopting Spanish sounding names. No Russian flown a/c in Spain used the Red Star, and I have never seen a photo or read an account other than this in 'Air Classics' of Red Star insignia being used even by avowed communists in 'La Gloriosa'.

"Somewhere in my research, I read of the development of the RS-82 rockets to improve the capabilities of the I-153 and I am certain this was after the 'Nomonhan' incident in the summer of '39, after the fall of the Republic. If and when I find the article, I will send verification.

"Air Enthusiast' of June '71 and 'Air Enthusiast 11' of Nov. '79 have excellent articles on the I-153 and they are very complete in their description of the development of Polikarpov's biplane fighters. Noticeable are the dates for prototype I-153, fall and winter of '38, and production and deliveries to the VVS in July '39. By the 1st of April '39, all organized Republican resistance had ended in Spain, and while the Soviets were testing the I-153 prototypes, the Republicans were being driven back across the Ebro and out of Catalonia in the battles that proved to be the end of the Republic. Soviet pilots were out of Spain by this time, and Stalin was too paranoid to let a 'foreign' pilot test his prototypes in combat in Spain where they could easily have been lost to the Nationalists and hence the Germans and Italians. According to Garcia Lacalle and agreed to by W. Green and 'Air Enthusiast' (and me), the Republic only got the I-152 in Jan. '39 (31 of 62 examples sent).

"The I-153 at the museum in Paris has been alleged to be an example flown to France by Spanish Republican pilot after the fall of Catalonia. It is an M62-engined example and that engine was introduced to the I-153, I believe, in 1940. Another magazine article ('Air Classics' again) I recently read stated that this a/c was from a display of captured military equipment that the Germans left behind when they left Paris in WWII. This makes sense to me. Also, I am certain that the French government agreed to return all interned Spanish Republican military equipment to the Nationalists, so the I-153 would have gone back to Spain if it had really been flown out by an escaping Republican pilot.

"Finally, I include a list of a/c that flew in the Spanish Civil War that are, or were, available in scale model kit form.

(Continued on next page.)

SPANISH CIVIL WAR AIRCRAFT

Arado Ar-68: Airmodel 1/72.
 Beechcraft 17 "Staggerwing": Rareplanes 1/72, AMT 1/48.
 Bloch MB-210: Heller 1/72.
 Boeing Model 281 (P-26): Revell 1/72, K&B 1/48, Hasagawa 1/32.
 Breda Ba-65: Rareplanes 1/72.
 Bristol 105 "Bulldog": Airfix 1/72, Impact-Pyro-Smer 1/48.
 Cant Z-501: Supermodel-? 1/72.
 DeHavilland DH-82 "Tiger Moth": Airfix 1/72, Matchbox 1/32.
 DeHavilland DH-89 "Dragon Rapide": Heller 1/72.
 DeHavilland DH-90 "Dragonfly": Airframe 1/72.
 Dewoitine D-510(TH): Heller 1/72 (D-500 kit for landing gear), Rareplanes 1/72.
 Dornier (Do-15) Wal: Airmodel 1/72.
 Dornier D6-17 (E, F, and P): Airfix E and F 1/72, Air-model conversion kit and Monogram Z for radial engine 1/72.
 Douglas DC-1 and DC-2: Execuform 1/72 (includes DC-1 conversion data).
 Fairchild 91 Amphibian: Execuform 1/72.
 Fiat BR-20 "Ciguenza": Italaerei 1/72.
 Fiat CR-32 "Chirri": Artiplast-?-Smer 1/50, Supermodel-? 1/72.
 Fieseler Fi-156A "Storch": Airfix 1/72, Heller 1/72, & Hasagawa 1/32 ("C" models that require difficult conversion).
 Fiat G-50: Convert from Airfix G-50bis 1/72.
 Fokker D-XXI (Republic acquired license to build, actual usage questionable) Frog-Novo 1/72.
 Fokker F-VIIb 3m: Convert from Frog-Novo "Southern Cross" 1/72.
 Fokker G-1 "Wasp" engined: Built for Republic, embargoed by Dutch government, none delivered) Airmodel 1/72.
 Ford 4AT-E "Tri-Motor": Airfix 1/72.
 Hawker "Fury" II (Hispano Engine): Airfix 1/48, Impact-Pyro-Smer 1/48, Matchbox 1/72. (Use Guano kit to convert landing gear to Fury II's "Dowty" gear.)
 Heinkel He-46: Airmodel 1/72.
 Heinkel He-51B: Rareplane 1/72, Hasagawa 1/72.
 Heinkel He-59 "Zapatonas": Airmodel 1/72.
 Heinkel He-60C: Airmodel 1/72.
 Heinkel He-70F "Rayo": Airmodel 1/72.
 Heinkel He-111 B and E: Matchbox 1/72 and Airfix 1/72 models are "H" models and require extensive modification to the "B" and "E" used in Spain. Airmodel kits to convert fuselage and wing.
 Heinkel He-112 B-2: Rareplane 1/72, Heller 1/72.
 Henschel Hs-123a: Airfix Hs-123b 1/72, ESCI 1/48.
 Henschel Hs-126a: Rareplanes 1/72, Italaerei 1/72, Matchbox 1/72, Airfix 1/72.
 Junkers Ju-52 3m3ge (and 1? floatplane): Airfix 1/72, Italaerei 1/72.
 Junkers Ju-86D "Fumo" (Diesel engined): Airmodel 1/72, Italaerei 1/72.
 Junkers Ju-87A and B "Stuka": Airmodel kit to convert Frog "G" to "A" 1/72, Heller 1/72, Airfix 1/72, Revell 1/32, Airfix 1/32.
 Lockheed Model 10 "Electra": Execuform 1/72.
 Lockheed "Vega": AMT-? 1/48.
 Martin 139 (B-10B) (License purchased by CASA just prior to war, none built): Williams Bros. 1/72.
 Messerschmitt Bf-108 "Taifun": Airmodel 1/72, Heller 1/72.
 Messerschmitt Bf-109 "B" thru "E-1": Airmodel "B" 1/72, Matchbox "B" & "E" 1/72, Airfix "E" 1/72, Revell "E" 1/72, Airfix "E" 1/48, Monogram "E" 1/48.
 Morane-Saulnier MS-230: Heller 1/72.
 Nieuport-Delage NiD-52: convert from Heller NiD-622 1/72.
 Northrup "Gamma": (I'm not sure about this one): Williams Bros. 1/72.
 Polikarpov I-15 and I-15bis (I-152) "Chato": Extensive modifications are needed to convert Heller's 1/72 I-153 to these. See "Air Enthusiast 11" and compare closely! I have used the engines from Revell's P-26 and I am dissatisfied. Wings 72 and Wings 48 had a resin-cast model of the I-15 that I would like a copy of.
 Potez 540 (or "54"): Heller 1/72.

Savoia-Marchetti SM-79 "Sparviero": Artiplast-?-Smer 1/50, Airfix 1/72.
 Savoia-Marchetti SM-81 "Pipistrello": Supermodel-? 1/72.
 Stinson Reliant (I am not sure of this one either): AMT 1/48, Execuform 1/72.
 Tupelov SB-2 "Katiusha": Frog-Novo 1/72.
 Vickers Vildebeest: Spanish version had "in-line" Hispano-Suiza engine) Contrail 1/72.
 Vultee V-1A: Execuform 1/72.

"I would appreciate any additions, deletions, or comments on either this list or my letter. Those requiring answers, please include SASE or International Reply Coupon." Bill Brown (SAFCH #526), 1719 Minnie St., Port Huron, MI 48060.

"E.A. Munday, Air Historical Branch 5 (RAF), referred me to you for the national military aircraft markings of pre-Soviet Ukraine, Hejaz (pre-Saudi), Asir (pre-Saudi), pre-Soviet Georgia, pre-Soviet Armenia, Far East Republic (pre-USSR), Tuvianian People's Republic (Tannu Tuva; incorporated into USSR 10/11/44), Slovakian tail marking (Robertson is wrong?), Mongolia (tail insignia of red flag emblem confirmed by Cuban, Mongolian and unknown East European journals, but alleged stylized 5-pointed gold-bordered star with flag emblem in gold within it for wings and perhaps fuselage still unconfirmed), new Angola with flag fin flash, new Albania, WW I Greece national warplane insignia, first Thailand national markings, and People's Republic of Kampuchea (Vietnamese installed), Guinea-Bissau, and Lesotho.

"The Air Force of Zimbabwe uses the black-outlined, golden Zimbabwe bird (in the triangle of the national flag) without any background, and the national flag as a fin flash. Their air force ensign, patterned after the RAF's, has the national flag in the canton, a field of azure with the black-outlined Zimbabwe bird insignia in the fly.

"P.S. I also need national markings for Dubai AF, United Arab Emirate "Union Air Force" UAEAF roundel with coat of arms and inscription in English and Arabic. Also, Montenegro."

Creighton Kern, 25 So. Monroe St., Ridgewood, NJ 07450.

(That's a humongous order and what follows is the best I can do right now. Perhaps some of our readers can help Creighton and the SAFCH by providing more detail.

Slovakia (April 1939 to Dec. 1940). Robertson has the right shape but incorrect colors. It should be a red double-armed cross on a blue field. The cross is outlined in white and there is a white ring around the whole thing. This insignia was carried on the wings and tail.

Albania. The latest I have on the Albanian AF insignia was published in SAFO #12. The information available at that time did not indicate the existence of a yellow border on the red star as shown in Creighton's sketch.

Kampuchea. The most recent insignia, at least to my knowledge, was illustrated in SAFO #17 and consists of a yellow Angkor Wat temple on a rectangular field of red.

Lesotho. A photo of a Lesotho Police Mobile Unit Skyvan appeared in the Sep/Oct 1980 issue of AFRICAN AIR REVIEW. Only the fin flash is visible and it is indistinct. I have ordered a color slide of this a/c but it has not yet arrived.

Angola. The only color photo I have seen of this insignia was in a recent issue of AIR INTERNATIONAL. Since I do not have this particular issue, I can not comment on the order of the colors.

Dubai. I have not seen any photos of a Dubai (UAEAF?) insignia with the inscription in two languages. The most recent thing I have is the June '77 issue of AIR INTERNATIONAL which shows only the English inscription being used.

Greece. I have always been under the impression that the Greek aircraft insignia has remained unchanged since the beginning. There was a change in the insignia used by the Greek Naval Aviation, but this consisted only of a change in the shade of blue used.

I have nothing at all on the other countries you mentioned, but I would sell my grandmother for information on a/c marked in any of these insignia.)

"I have not seen the Italian magazine AEREI MODELLISMO abstracted in SAFO. This magazine is one of the best for plastic aircraft modelers that I have seen. Volume 2 includes the following: Jan. - Gladiator super detail with Finnish markings. (A good complement to SAM Vol. 3 No. 3.) SAAB J-35 coverage for all versions, including Danish photo-reconn and training versions. Feb. - Conversion of the Caproni Ca 311 into a Ca 310, with color schemes for Spain, Norway, Yugoslavia, Peru, and Italy. The rest of this issue is on the F-15, F-18, and FW 190; good but not for SAFO. March - F-86 in Portugal, Norway, Spain, Saudi Arabia, Thailand, Philippines, South Korea, Nationalist China, South Africa, Australia, Japan, Pakistan, Columbia, Canada, and Venezuela. Issue also includes the Me 210/410 and the E-2 Hawkeye. April - Not much for the SAFO in this issue; just the OV-10 in Venezuelan and Thai markings. The rest is on the Bf 109 and the A-5 Vigilante. May - The main item in this issue is the F-84F. They probably cover all of the F-84s that ever existed in the Italian AF. The rest of the issue is on the F-111. June - P-40 in Commonwealth markings. Super detailing an F-84F. The F-104 in Canada, Turkey, Greece, Norway, Belgium, the Netherlands.

"With each article, they include a complete listing of colors, including such items as interiors, cockpit items, u/c, etc. They give the FS 595a reference and the appropriate Humbrol, Pactra, Polly S, etc. paint. They also give the dimensions of each major scale for the model, such as 1/72, 1/48, etc. The big problem is that it is in Italian, which is somewhat difficult to read. Even with my limited knowledge of Spanish, I am having trouble.

"An other item I want to throw out to you and your readers is the possibility of establishing a home-computer file of aircraft magazines. I have a large collection of magazines and no really good way of cross referencing them. I had a card file going for awhile, but I found that it went through an awful lot of cards, and after a while, I lost interest in the chore. I am sure that you have spent hours, just as I have, sitting on the floor looking for that one article that you vaguely remember. This whole subject was in the realm of 'I've got to get organized tomorrow' until the advent of the home computer. It appears that we now have a tool to improve our means of filling this information. I have an Atari 400 with 16K memory, and I have been looking at various ways of storing and retrieving data. It occurred to me that others probably have had the same idea and probably have better programs or else several of us could get together and share the load of storing data.

"My first program is as follows:
10 GRAPHICS 0: DIM A\$(30), N\$(20)
20 PRINT "ENTER COUNTRY AND AIRPLANE";: INPUT N\$
30 X=LEN(N\$): RESTORE: A=0
40 READ A\$
50 IF A\$="END" THEN PRINT "PRESS RETURN TO CONTINUE";:
INPUT A\$: GRAPHICS 0: GOTO 20
60 IF A\$(1,X) = N\$ THEN PRINT A\$: A = A+1
70 IF A = 20 THEN PRINT "PRESS RETURN TO CONTINUE";:
INPUT A\$: GRAPHICS 0: A = 0
80 GOTO 40
1000 DATA END

"With this program, I could input into individual data statements the following: Country, airplane, magazine and vol/no, and info about the article such as 3-view, color, etc. The program works OK, but it uses a lot of memory because the magazine has to be repeated with each item. Twenty Koku Fans used about half of the available memory. As a result, we (my son and I - the computer is really his) came up with the following program:

10 DIM R\$(20), N\$(20), M\$(20)
20 GRAPHICS 0
30 PRINT "ENTER COUNTRY AND AIRPLANE";: INPUT N\$
35 IF N\$ = "END" THEN GRAPHICS 0: END
40 RESTORE
50 READ R\$
55 IF R\$ = "END" THEN PRINT "PRESS RETURN TO CONTINUE";:
INPUT R\$: A = 0: GOTO 20
60 IF R\$ = "*" THEN READ R\$: M\$ = R\$: GOTO 80

65 L = LEN(N\$)
70 IF N\$ = R\$(1,L) THEN PRINT R\$; "-"; M\$; A = A+1
80 IF A = 20 THEN PRINT "PRESS RETURN TO CONTINUE";:
INPUT R\$: GRAPHICS 0: A = 0
90 GOTO 50
1000 DATA END

"In this one, the magazine is entered only once, after the *, and it appears to use less memory. We will be getting a disc drive this summer, so these two programs may be modified even more.

"I am writing this to you because I feel that your readers may be into something like this, and we could have some mutual standardization and sharing of the work."

Clarence Wentzel (SAFCH #524), c/o GM de Venezuela, PO Box 592857, Miami, FL 33159.

(Continued from page 102.)

furnishing only the barest of replies. This is a regrettable situation but one that is beyond the control of the Director of the Center because of financial and personnel restraints. We also must point out that any individual can visit the Center between the hours of 0800 and 1645, Monday through Friday, and conduct his own research at no cost.

"With more than ten years experience as a research historian with the Center, the chief research historian of the Aerospace Historical Research Service is completely familiar with the finding aids, files, and procedures at the Center. The Service thus can provide fast and thorough research at minimum cost. Here is how the service works:

"Should you decide to try our service, make your needs known by letter, specifying as briefly as possible what information you seek. Give us all of the basic data already available to you - unit designations, aircraft types and serial numbers, individual names, places, dates - in order to reduce the time we will have to spend on such basic research before we can get to the information you want. We will handle all such information in strictest confidence and never will give it to anyone else under any circumstance.

"Upon receipt of your query, we will analyze your goal to determine whether it can be met by research at the Center; exploit the Center finding aids to determine the extent of the available material and the probable research time; and send you a complete evaluation report and an estimate of the cost.

"Should you accept our cost estimate for your research, we will proceed immediately upon receipt of your check or money order for half of the estimated amount. The balance will be due and payable upon your receipt of our final report. If research takes more time than estimated, the charge to you never will exceed the written estimate. Should we complete the research in less time than we estimated, we will charge you only for the actual research time. If you decide to have us do less work than that covered by our estimate, we will quote you an hourly rate or make any adjustment you may wish. We also will be happy to discuss financial arrangements on an individual basis.

"We can furnish copies of documents at 15¢ per page, and such copying will not be considered as part of research time. We also can make 35mm film copies of photographs found in the histories. The cost of such copying will depend upon the number of photographs to be copied at any one time, but always will be well below the local commercial photo copying rate. We will furnish proof sheets or proof prints with all copy negatives.

"We welcome further questions and will reply as quickly as conditions permit. We will mail all evaluation reports within three working days of receipt of each query. A full accounting of research time and copy costs will accompany each report. We intend to provide the fastest, most accurate, and most thorough research in the Air Force archives at the lowest possible cost to our clients."

Bill Greenhalgh (SAFCH #205), PO Box 254, Watumpka, AL 36092.

AIRCRAFT OF THE SMALL AIR FORCES

HONDURAS

| | | |
|-----------------------------|---------|----|
| Beechcraft AT-11 | /73 | |
| " C-17R | | |
| " C-45 | /76* | |
| Bell P-63 Kingcobra | | |
| Boeing 95 | | |
| " -Stearman Kaydet | | |
| Bristol F.2B | | 2 |
| Cessna 180 | 73/76* | 4 |
| " 185 | 73 | |
| " T-41 | /76* | 5 |
| Curtiss-Wright C-46 | /75 | |
| Douglas B-26C | 73/76* | 6 |
| " C-47 | /73/76* | 6 |
| " C-54 | 73/76* | 2 |
| Fairchild PT-23 | | |
| IAI-201 Arava | /76* | 1 |
| Lockheed P-38 Lightning | | |
| " T-33A, RT-33A | 73/76* | 3 |
| Noorduyn Norseman | | |
| North American NA-16, T-6G | /73/76* | -6 |
| " P-51D Mustang | /73 | 5 |
| Republic P-47D Thunderbolt | | |
| Ryan ST | | |
| Sikorsky H-19 | 73/76* | 3 |
| Waco UPF-7 | | |
| Vultee BT-13 Valiant | | |
| Vought F4U-4, F4U-5, F4U-5N | 73/76* | 12 |

HUNGARY

| | | |
|---------------------------------|---------|-----|
| Aero L-29 | 73/75 | |
| Antonov An-2 | /73/76* | 10 |
| Bucker Bu131 Jungmann(C.4) | 38/ | |
| " Bu181 Bestman(C.106) | | |
| Caproni Ca.135bis | 39/ | |
| " Ca.310 | 39/ | |
| Fiat C.R.32 | | |
| " C.R.42 | 39/ | |
| Fieseler Fi.156C Storch | | |
| Heinkel He46 | | |
| " He70 | 38/ | |
| Ilyushin Il-10 "Ruszkó" | | |
| " Il-14 | 73/76* | 10 |
| " Il-28 | /73/75 | |
| Junkers Ju86D | 38/ | |
| " Ju87D | 42/ | |
| " Ju88A | 42/ | |
| Kamov Ka-26 | /75 | |
| Lisonov Li-2 Teve | 49/76* | 10 |
| Meridionali Ro.37 | | |
| Messerschmitt Bf109E | 42/ | 40 |
| " Bf109F, G Gyor | 43/49 | 59 |
| Mikoyan-Gurevich MiG-15 Jaguar, | /76* | |
| " MiG-17 Csuszo | /73/76* | 10+ |
| " MiG-19 | 73/76* | 30 |
| " MiG-21, -21UTI | 73/76* | 110 |
| Mil Mi-1 | 73/76* | |
| " Mi-2 | /75 | |
| " Mi-4 | 73/76* | 6 |
| " Mi-8 | 73/76* | 35 |
| Nardi FN-315 | 39/ | |
| Polikarpov Po-2 | 49/ | |
| Reggiane Re 2000 Hejja | 43/ | |
| Sukhoi Su-7, -7UTI | 73/75 | 55 |
| Tupolev Tu-2 | | |
| " Tu-124 | /75 | |
| UT-2 | 49/ | |
| Weiss W.M.13 | 36/ | |
| WSK SM-2 | 73 | |
| Yakovlev Yak-9 | 49/ | |
| " Yak-11 Parduc | /73 | |
| " Yak-18 Furj | /73 | |

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|-----------------------------------|--------|------|
| Aerospatiale Alouette II | 72/74* | 40 |
| " " (HAL) | | |
| " Alouette III SA 316B | 62/74* | 37 |
| " " "Chetek" (HAL) | 65/76* | 140 |
| " Lama "Cheetah" SA 315B | 72/74* | 20 |
| " " (HAL) | /76* | 80 |
| Airspeed Oxford I | 46/ | 5 |
| Antonov An-12B | 61/76* | 34 |
| Armstrong Whitworth AW 15 Atlanta | 40/42 | 5 |
| " Sea Hawk FGA 6 | /76* | 74 |
| Auster A.O.P. 4 | 45/ | |
| " " 5 | 46/ | |
| " " 6 | 46/70 | |
| " " 9 | 55/76* | 35 |
| " " 10 | 55/68* | 35 |
| Avro Anson I | 42/45 | |
| " 748 Series 1 | 61/ | |
| Bell 47G-2 | 57/68* | 4 |
| " 47G-3B | 61/ | 12 |
| " AB-47 | /76* | 12 |
| Boulton Paul Defiant TT III | 44/ | |
| Breguet Br.1050 Alize | /76* | 14 |
| Bristol Blenheim I | 41/ | 4 |
| Britten-Norman Islander | /76* | 5 |
| CCF Harvard IV | 57/68* | 36 |
| Consolidated B-24J Liberator | 48/68 | 16 |
| " B-24L " | 48/68 | 45 |
| Dassault MD-452 Mystere IVA | 57/76* | 110 |
| " Ouragan "Toofani" | 53/67 | 104 |
| de Havilland DH 82A | 39/57 | |
| " DH 85 Leopard Moth | 39/ | |
| " DH 86 | 41/ | 1 |
| " DH 89 Dragon Rapide | 41/ | |
| " DH 94 Moth Minor | | |
| " Devon C.1 | 47/76* | 20 |
| " Heron | | |
| " DHC-1 | | |
| " DHC-3 Otter | 56/76* | 31 |
| " DHC-4 Caribou | 63/76* | 22 |
| " Vampire F.3 | 48/ | 3 |
| " FB.5 | 48/60 | ~15 |
| " FB.9 | 49/65 | ~125 |
| " FB.52 | 50/74* | 5 |
| " " (HAL) | 52/ | 281 |
| " NF.54 | 53/66 | 29 |
| " T.11 | 62/ | 6 |
| " T.55 | 53/76* | 63 |
| Douglas C-47 Dakota III | 46/76* | ~80 |
| " " IV | | |
| " " Hyper | /67 | 12 |
| English Electric Canberra B(I)12 | /76* | 10 |
| " " B(I)58 | 57/76* | 72 |
| " " B.12 | | |
| " " B.66 | | 10 |
| " " PR.57 | 57/76* | 18 |
| " " PR.67 | | |
| " " T.4 | 58/68* | 11 |
| " " T.54 | 57/ | 6 |
| " " T.67 | /75* | 2 |
| " " T.84 | /75* | |
| Fairchild PT-26 Cornell | 43/46 | ~40 |
| " C-119G | 54/76* | 78 |
| Fairey Battle | 44/ | |
| " Firefly | /58* | |
| Folland Gnat 1 | 58/68* | 23 |
| " " (HAL) | 59/76* | ~250 |
| " " 2 "Ajeet" | | |
| Hawker Audax | 39/45 | |
| " Hart | 39/41 | |
| " Hind | 39/41 | |
| " Hunter F.56 | 57/76* | 196 |
| " " F.56A | 67/ | 36 |
| " " T.66A | 57/68* | 22 |

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|----------------|--------------------------|-----------|--|--|
| " | " | T.66D | | |
| " | Hurricane | IIB,C | | |
| " | " | IV | | |
| " | " | XII | | |
| " | Tempest | II | | |
| " | Siddeley HS | 748 Srs 1 | | |
| " | " | " Srs 2 | | |
| HAL | HAOP-27 | "Krishak" | | |
| " | HF-24 | "Marut" | | |
| " | HJT-16 | "Kiran" | | |
| " | HT-2 | | | |
| " | HUL-26 | "Pushpak" | | |
| Hughes | 300 | | | |
| Ilyushin | Il-14 | | | |
| " | Il-38 | | | |
| Lockheed | Hudson III | | | |
| " | L-1049C,E,G | | | |
| MiG-21F | -13 | | | |
| " | -21FL | | | |
| " | -21M (HAL) | | | |
| " | -21M(F) Type 88 (HAL) | | | |
| " | -21U Type 66 Series 400 | | | |
| " | -21UTI | | | |
| " | -23 (50 On order 1976 ?) | | | |
| Mil | Mi-4 | | | |
| " | Mi-8 | | | |
| North American | AT-6F | | | |
| " | AT-6G Texan | | | |
| " | Harvard I | | | |
| " | " IIB | | | |
| " | " III | | | |
| " | " 4 | | | |
| Percival | P.40 Prentice T.3 | | | |
| Sikorsky | S-55C | | | |
| " | S-62B | | | |
| Short Sealand | | | | |
| Sud-Aviation | Alouette III | | | |
| Sukhoi | Su-7BMK Type S-22 | | | |
| " | Su-7U | | | |
| Super Aero | AE.45-S | | | |
| Supermarine | Spitfire VC | | | |
| " | " VIII | | | |
| " | " XIVE | | | |
| " | " XVIII | | | |
| " | " PRXIX | | | |
| " | " TIX | | | |
| TS-11 | Iskra (90 On order 1976) | | | |
| Tupolev | Tu-124 | | | |
| Vickers | Valentia | | | |
| " | Viscount 723 | | | |
| " | " 730 | | | |
| Vultee | Vengeance I | | | |
| " | " III | | | |
| " | " IV | | | |
| Westland | Lysander II | | | |
| " | Sea King 42 | | | |
| " | Wapiti IIA | | | |
| Zlin | 212 | | | |

INDONESIA

| | | | |
|--------------|-----------------------|--------|----|
| Aero | L-29 Delfin | 58/75 | |
| Aero | Commander 100 | | 3 |
| " | " 580 | | |
| " | " 680 Grand Commander | /76* | 3 |
| Aerospatiale | Alouette II | 73/76* | 3 |
| " | " III | 73/76* | 14 |
| AESL | Airtourer T.6 | 73/76* | |
| Antonov | An-2 | | |
| " | An-12 | 73/76* | 10 |
| Auster | | 55/ | |
| Avro | Anson | 48/48 | 1 |
| Beechcraft | (Fuji)T-34 | | 1 |
| " | T-34C | 78/ | 4 |
| " | H18S | 74 | |
| " | King Air A-100 | | |
| " | T-34 Mentor | /76* | 20 |
| Bell | 47G (3 on order 76) | 73/76* | |
| " | 204B | 73/76* | 5 |
| " | 206B (2 on order 76) | | |

| | | | |
|-------------------|-----------------------------|---------|-----|
| Bristol | Blenheim IV | | |
| CASA | C.212 Aviocar | | |
| Cessna | 180 | 55/ | |
| " | 185 | /76* | |
| " | T207 Turbo Skywagon | 73/76* | 5 |
| " | 401A | 69/76* | 5 |
| " | 402A | 69/76* | 2 |
| Consolidated | PBY-5A Catalina | 48/73 | 2 |
| deHavilland | D.H.86B | 48/48 | |
| " | Vampire T.55 | 55/ | 8 |
| " | Canada DHC-2 Beaver | /76* | 1 |
| " | DHC-3 Otter | 58/76* | 13 |
| Douglas | B-26B Invaders | 60/73 | 4 |
| " | C-47 | 48/76* | 20 |
| Fairey | Gannet A.S. Mk.4 ASW | 59/ | 16 |
| GAF | Nomad 22MR | /75/76* | 6 |
| Fokker | F.27Mk.400M Troopship | | |
| Grumman | Mallard | | |
| " | SA-16A, HU-16D Albatross | 55/76* | 8 |
| Hiller | 360 | 55/ | |
| Ilyushin | Il-14 | 58/76* | 28 |
| " | Il-28, Il-28U | 58/76* | 40 |
| Kawanishi | H6K5 | 46/47 | |
| LIPN | Belang 85(L-4J) | | |
| " | 90(L-4J) | | |
| " | Gelatik (PZL-104 Wilga) | | |
| Mansyu | Ki.79-Otsu "Banteng" | 45/47 | |
| Mikoyan-Gurevich | MiG-15bis, | 58/76* | |
| " | MiG-17, MiG-17PF | 58/76* | 200 |
| " | MiG-19, MiG-19SF | 58/76* | 35 |
| " | MiG-21F | /73/76* | 18 |
| Mil | Mi-4 | 73/76* | 16 |
| " | Mi-6 | 73/76* | 9 |
| Nakajima | Ki.43 Hayabusa | 46/47 | |
| " | Ki.49 Donryu | 45/47 | |
| Noorduyn | (CCF) Norseman | 50/ | 1 |
| North American | B-25D, J Mitchell | 50/73 | 5 |
| " | (Commonwealth CA-27 | | |
| " | Sabre Mk.32) | 72/76* | 16 |
| " | F-86F | | |
| " | P-51D, K Mustang | 50/76* | 14 |
| " | T-6G Texan | 50/76* | |
| Pazmany | PL-2 (LT-200)(License Mfg.) | /75 | |
| Piper | L-4 | /75/76* | |
| PZL-104 | Wilga "Gelatik" | 73/76* | 56? |
| Rockwell | International OV-10F | | |
| Scottish Aviation | Twin Pioneer C.C.1 | | |
| " | " " " C.C.2 | 72/73 | 3 |
| Short | Skyvan | 73/76* | 3 |
| Sikorsky | S-61A | 73/76* | 1 |
| " | UH-34D | /76* | 4 |
| Stinson | L-5 | 48/48 | 1 |
| Tachikawa | Ki.9Kai "Tjurem" | 45/47 | |
| " | Ki.55 "Tjukio" | /47 | |
| Tupolev | Tu-16 | 73/76* | 22 |
| Vultee | BT-13A Valiant | 55/ | |
| Yakovlev | Yak-11? | 73 | |

Legend: The company name is the one current when the a/c was built. If the aircraft was built under license, the name of the original manufacturer appears in parenthesis. The name of the a/c is that used in the country of service. The dates entering and leaving service are separated by a "/". An initial "/" denotes that the date entering service is unknown, and the following date is the earliest the a/c is known to have been in service. A final "/" indicates that the date the a/c was withdrawn from service is unknown, and the preceding date is the latest the a/c is known to have been in service. An "*" denotes that the a/c was still in service at that date. This is the fifth part of a continuing research project listing all the a/c used by all the small air forces. Previous parts have appeared in SAFO #7, #9, #11, and #14. This information will be stored on a computer so that additions and corrections can be easily made. When this project is completed, the results will be made available in a compact and inexpensive format. Anyone wishing to help with this project should contact the project coordinator: John C. Thornburg, 4940 Mermaid Blvd., Wilmington, DE 19808.

CONFLICTS, COUPS, CRISES & CLASHES

A SURVEY OF THIRD-WORLD AIR COMBAT FROM 1946 TO THE PRESENT

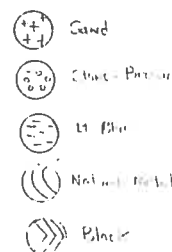
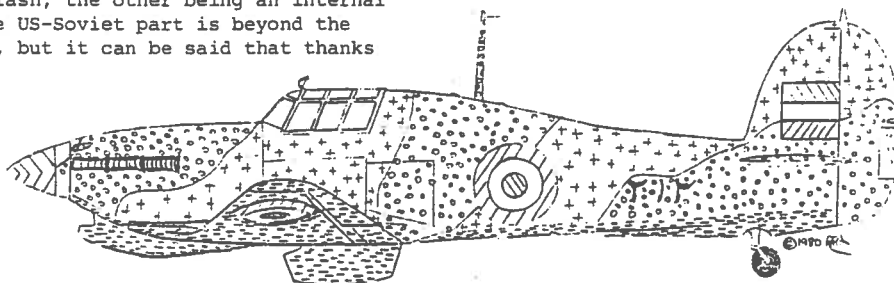
No. 13. Hawker Hurricane Mk IIc, Advanced Group, Flying Training School, Persian Air Force, Doshan Teppah, 1946-47.

The first real crisis of the "Cold War" ear began, ironically, in Iran. On November 18, 1945 the communist Tudeh Party was a primary fomenter of rebellion in Azerbaijan Province. Government efforts to restore order were hamstrung by occupying Soviet forces in northern Iran.

In essence, the crisis was two-fold: One being a potential US-Soviet clash, the other being an internal Iranian squabble. The US-Soviet part is beyond the scope of this summary, but it can be said that thanks

to strong support from the USA, Iran was able to bring about an end to the problem.

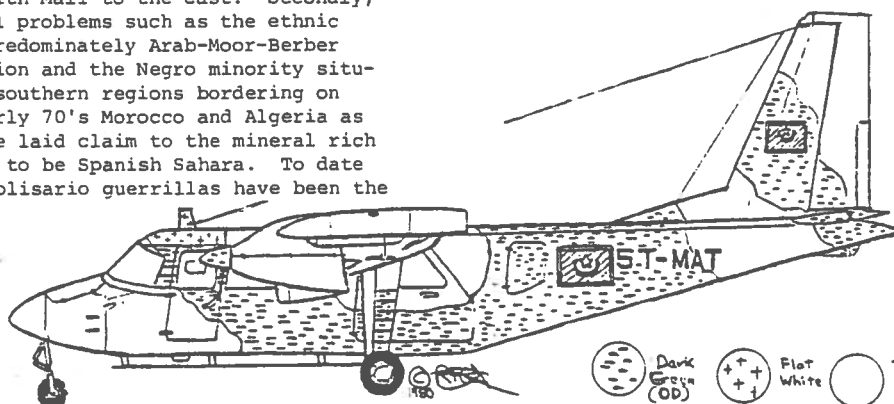
Hurricane fighters from the Flying Training School were utilized for various air support roles, including strafing, bombing and reconnaissance of rebel strongholds. The suppression of the uprising was successfully concluded by December 1946. In light of present events in that part of the world, it is just possible that the final US-Soviet confrontation could take place....



No. 14. Britten-Norman Defender, Force Aerienne Islamique de Mauritanie.

Mauretania's security troubles are double-edged. First there are the border quarrels with Morocco and Algeria to the north and a potential dispute along the ill-defined frontier with Mali to the east. Secondly, there are some internal problems such as the ethnic division between the predominately Arab-Moor-Berber segment of the population and the Negro minority situated mostly along the southern regions bordering on Senegal. Since the early 70's Morocco and Algeria as well as Mauretania have laid claim to the mineral rich territory of what used to be Spanish Sahara. To date Algerian "sponsored" Polisario guerrillas have been the biggest headache.

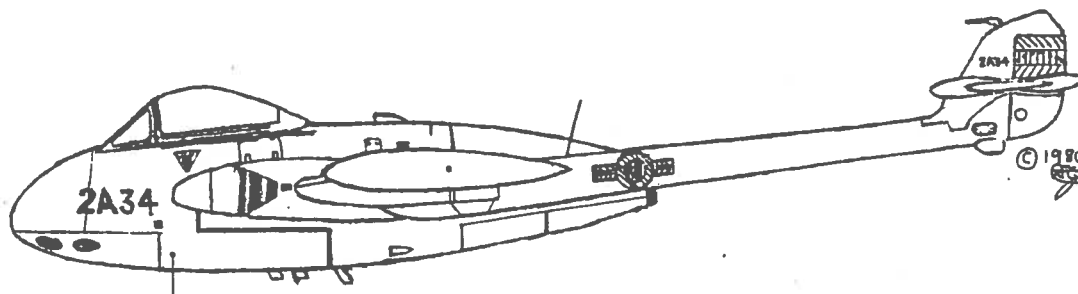
In order to counter the Polisarios and other treats the Mauretanian Islamic Air Force acquired a handful of the versatile Defenders in 1976-77. These aircraft have given quite an impressive account of themselves in the counter-insurgency role up to this day



No. 15. De Havilland Venom F.B. Mk.4, Escuadron de Caza-Bombardo Numero 34, Fuerza Aeras Venezolana. Based at Maiquetia Field, Caracas, Circa 1962.

Troubles in Venezuela have appeared in many forms since the end of WW II. Paramount of these was Fidel Castro's aim of using Venezuela as a stepping-stone for spreading communist-style revolution throughout South America in the 1960's. In may-June of 1962 pro-Castro elements in the Navy attempted to usurp Romulo Betancourt, but were quickly suppressed. In 1963, Cuban agents began a campaign of sabotage, mainly against Venezuelan oil

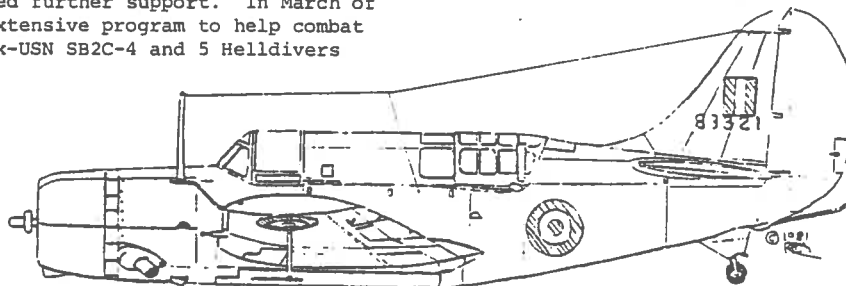
facilities. Government action was swift. Mass arrests of known communists and counter-insurgency actions ensued. Air Force Venons were among the aircraft types called upon to combat the menace. From their base at Maiquetia, the Venons were almost ideally situated for patrolling the threatened coastal regions. Action came again in 1968 in what may have been the last combat sortie undertaken by the Venom. They have more or less departed the scene in Venezuela, replaced by the CF-5A. Overall finish is natural metal.



No. 16. Curtiss SB2C-5 Helldiver. Royal Hellenic Air Force, 1949. Probably 13th Mira, based at Larissa, but cannot be confirmed.

At the close of WWII, most of the eastern Mediterranean region had become a breeding ground for chaos. Such was the case with Greece. Strategically located, it was a priority target for communist control. Greek communist factions, led by General Vafiades, gained control of much of the northern border areas in early 1946. Albania, Bulgaria, and Yugoslavia each played a major role in the aiding and abetting of the rebels. Britain had given some aid to the Greek government, but postwar economic problems at home precluded further support. In March of 1947, the USA began an extensive program to help combat the communist threat. Ex-USN SB2C-4 and 5 Helldivers

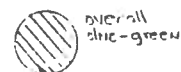
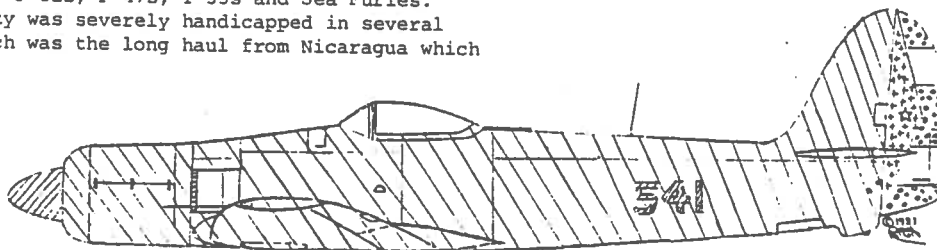
constituted a part of that aid. The divebombers contributed in no small measure to the final victories by the government forces. The Helldivers did very well in the bombing role - especially in the rugged terrain they had to operate in. On at least one occasion, Bulgarian territory came under Greek Attack. Bulgaria had been permitting the rebels to use its territory to build strongpoints and as a "sanctuary". By late 1949, the tide had turned completely against the communists. The rebels had either been exterminated or driven out of Greece. Hostilities were declared over on 16 October 1949. Overall finish is dark blue.



No. 17. Hawker Sea Fury F.B.Mk 11, Fuerza Aerea Revolucionaria, circa 1961.

In March 1960, under CIA "direction", the Eisenhower administration gave its blessings to Cuban exiles wishing to topple the regime of Fidel Castro. Upon assumption of office, President Kennedy authorized the go-ahead for the exile invasion of Cuba. Unfortunately, much of the information pertaining to Castro's capabilities was either couched in over optimistic terms or downright spurious. On April 15, 1961, the exiles launched air strikes against the main Cuban airfields. Cuba's Revolutionary Air Force at that time was comprised of a handful of B-26s, P-51s, P-47s, T-33s and Sea Furies. Exile air activity was severely handicapped in several ways; one of which was the long haul from Nicaragua which

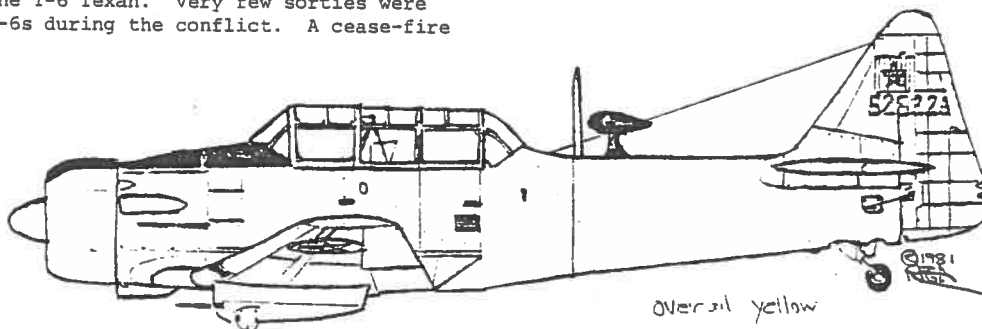
left little time for combat loiter. Another, was the belief that the US would provide air support. In fact, during the last days of the invasion, some US jets from the carrier Boxer did provide escort for the exile bombers. Air action over the Bahia des Cochinos (Bay of Pigs) area was sporadic. By April 20th, Castro's forces had prevailed. The debacle of the Cuban exiles dealt a major blow to American prestige. It most likely drove Cuba irretrievably into the communist camp. On May 1st, Castro declared Cuba to be a socialist state and a full fledged member of the Communist Bloc.



No. 18. North American T-6G Texan, Al Quwwat Aljawwiya Almalakiya Marakishiya, circa 1963.

In the early 60's, tension between Morocco and Algeria ran high, mainly as a result of the ill-defined frontier along the Sahara Desert/Atlas Mountain region. The fact that the disputed territory is extremely rich in minerals is a primary motivating factor in the mutual claims. The tensions erupted into open conflict on October 13, 1963. Algeria had the advantage of lavish Soviet support, especially regarding its Air Force. On the other hand, the Royal Maroc Air Force had one combat element built around the T-6 Texan. Very few sorties were undertaken by the T-6s during the conflict. A cease-fire

brought about through the intercession of Haile Selassie of Ethiopia and Modibo Keita of Mali went into effect on October 30. The Texans continued in service throughout the 60's and 70's being ideal for counter-insurgency missions against the Polisario Front guerrillas. By 1980, the T-6 had more or less faded from the scene in Morocco. Unfortunately, the same cannot be said of the problems that abound in this part of North Africa.

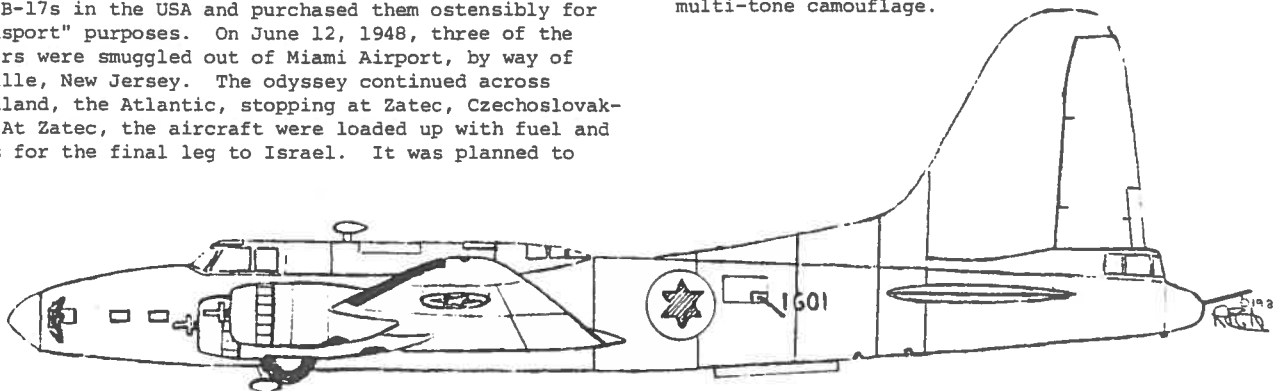


Overall yellow

No. 19. Boeing B-17G Flying Fortress, No. 69 Sqn. Chel Ha'Avir Le Israel, late 1948.

Among the annals of aviation exploits that have attained near legendary quality is the saga of Israel's B-17 bombers. On May 14, 1949, the British mandate of Palestine ended and the state of Israel came into being. Almost at once, Arab forces from Egypt, Syria, Lebanon and Trans-Jordan invaded. At the time the Israeli Air Force was not composed of any real combat element, just a handful of converted or jerry-rigged transports and sport planes. Israeli agents had located some war surplus B-17s in the USA and purchased them ostensibly for "transport" purposes. On June 12, 1948, three of the bombers were smuggled out of Miami Airport, by way of Melville, New Jersey. The odyssey continued across Greenland, the Atlantic, stopping at Zatec, Czechoslovakia. At Zatec, the aircraft were loaded up with fuel and bombs for the final leg to Israel. It was planned to

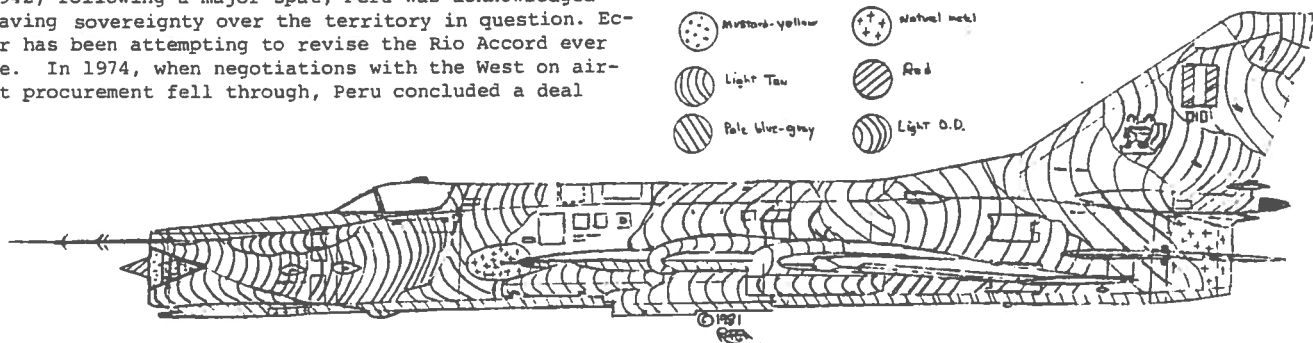
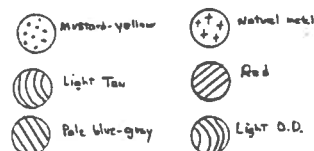
bomb parts of Egypt on the way in. Surprise was complete, two of the planes bombed bases in the Sinai while the third unloaded over Cairo. Actual damage was minimal but, as in Doolittle's raid six years earlier, the psychological effect on Egypt was enormous. The B-17s were formed up into No. 69 ,acabeem (The Hammers) Squadron and undertook nearly 200 sorties on all fronts up to the final ceasefire on July 20, 1949. The B-17s saw action during the early 50's and again during the Sinai campaign in October 1956. The aircraft sported various finishes, ranging from weathered natural aluminum to multi-tone camouflage.



No. 20. Sukhoi Su-22 Fitter F, Escuadron de Caza 11 "Los Tigres", Grupo de Caza 12, Fuerza Aerea Perunana, based at Los Palmas, deployed to Jorge Chavez Airport, Lima, December 1980 - January 1981.

Among the long standing border feuds on this planet is that between Peru and Ecuador. The dispute over the Marañon-Huallaja region dates back to the 19th century. In 1942, following a major spat, Peru was acknowledged as having sovereignty over the territory in question. Ecuador has been attempting to revise the Rio Accord ever since. In 1974, when negotiations with the West on aircraft procurement fell through, Peru concluded a deal

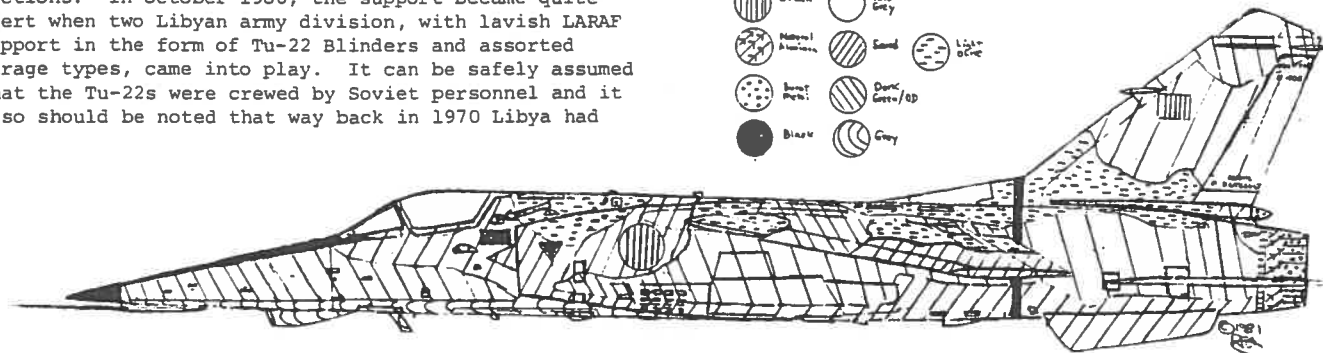
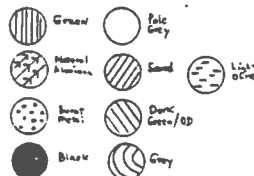
with the Soviets for the purchase of the Su-22. The latest dispute erupted into full fledged conflict in late 1980 and early 1981. Ground and air action ensued with neither side gaining a major victory. The status quo remains and the next round of combat is not a matter of 'if' but rather 'when'. (Note: Stencils all appear to be in yellow.)



No. 21. Dassault-Breguet Mirage FLAD of the Libyan Arab Republic Air Force, normally based at El Adem, Tobruck .

Definition of Territorial Imperative can be summed up in one word: Libya. Ever since Mu'ammar Kadhafi has been at the helm of Libya's government, there has been no end to the border disputes with neighbors to the east, to the west, and more recently, on its southern flank with Chad, where for years there has been endemic civil strife in that unhappy former French colony. Colonel Kadhafi had been giving more or less covert assistance to the rebel factions. In October 1980, the support became quite overt when two Libyan army division, with lavish LARAF support in the form of Tu-22 Blinders and assorted Mirage types, came into play. It can be safely assumed that the Tu-22s were crewed by Soviet personnel and it also should be noted that way back in 1970 Libya had

pledged to France that French equipment, especially aircraft, would never be used in Chad. The Chad capital N'djamena and other towns came under heavy Libyan air attack. A cease fire "agreement" went into effect on December 16th. What next occurs is anyone's guess. Perhaps with Chad fully annexed to Libya, Colonel Kadhafi and his Soviet masters hope to achieve destabilization in the Saharan region to take on Sudan and eventually, with some hope, Egypt.



VNAF

AIRCRAFT
UNIFORM

INSIGNIA



Large embroidered patch (5/8 in. deep) showing a version of the 516th VNAF SQUADRON emblem. Dark blue disc and scroll, bordered in white. Star and motto also white. Tiger head in natural colors with black details, white highlights (including around eyes), chin and teeth. Brown lower lip. Mouth is 3 shades of red, with grey (also grey on nose). Subtle shadings of lemon-yellow, medium-yellow, & orange-yellow. High quality embroidery, not typical R.V.N. manufacturing style. [Photocopy, with slight retouching, of sample in "small airforces" collection.]

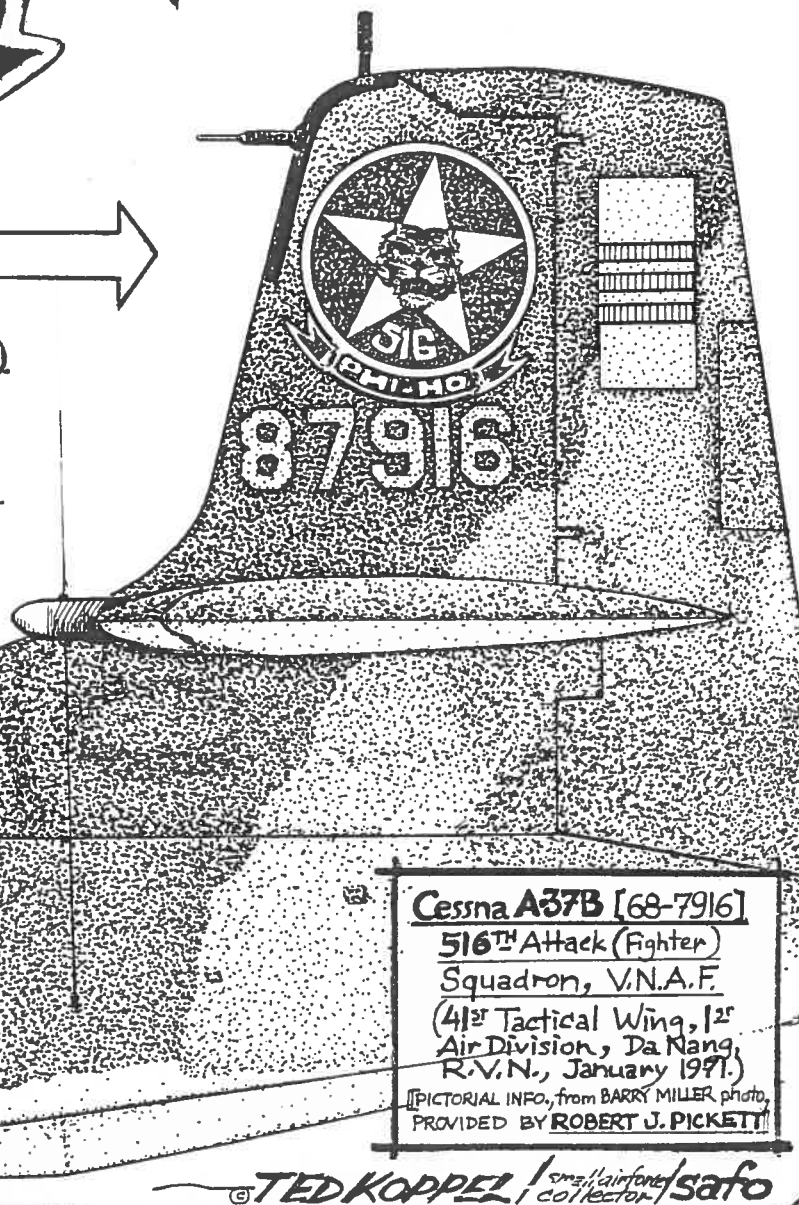
Aircraft emblem: dark blue and white; tiger face [approximated] in yellow and black, white muzzle and chin, red mouth.

Serial number: tan (camouflage shade).

[Earlier 516 Sqn. emblems featured just the tiger head in three-quarter view on the fin or nose of T-28s and A-1s.]

Compare with photo in *FLIGHT International* "World's Air Forces" issue, 26 July 1973, page 162 ... and drawing in *REPLICA IN SCALE*, Vol. 3, No. 1 (March, 1975), page 46.

For refs. to other 516 Sqn. aircraft, see listing in *SAFO* No. 7 (Vol. 2, No. 3; July 1977), pages 80-81.



Cessna A37B [68-7916]
516th Attack (Fighter)
Squadron, V.N.A.F.
(41st Tactical Wing, 1st
Air Division, Da Nang,
R.V.N., January 1971.)

[PICTORIAL INFO, from BARRY MILLER photo,
PROVIDED BY ROBERT J. PICKETT]

TED KOPPEL / small airforces / safo collector